

60c

The Soviet Review

Translations IN SOCIAL ANALYSIS • CRITICISM,
LITERATURE • THE ARTS, SCIENCE • TECHNOLOGY

SEPTEMBER 1961

Mark Twain's Unpublished Literary Heritage
The Organization and Objectives of Soviet Science
Persuasion and Compulsion in Combatting Anti-Social Acts
Competition at the Kindergarten Level

THE SOVIET REVIEW

A Journal of Translations

VOLUME 2 SEPTEMBER 1961 NUMBER 9

Contents

Science and Technology

- The Organization and Objectives of Soviet Science
M. V. Keldysh 3

Literature and the Arts

- Mark Twain's Unpublished Literary Heritage
M. O. Mendelson 33

Social Analysis and Criticism

- Persuasion and Compulsion in Combatting Anti-Social Acts
N. Mironov 54

Education

- Competition at the Kindergarten Level Y. G. Baturina 66

Notes

- A Tribute to Hemingway 72

THE AUTHORS

ACADEMICIAN MISTISLAV VSEVOLODOVICH KELDYSH, born in 1911, was elected President of the USSR Academy of Sciences in May 1961. He received his doctorate in physics and mathematics at Steklov Institute of Mathematics in 1938. He has supervised research on dynamic strength and vibration in aircraft and has contributed to the theory of flutter control, to the theory of fluid compressibility and lift, and to the development of hydrofoil boats. Many mathematical techniques developed on the basis of his original research are today of practical significance in physics and engineering, computer technology, and automatic control. Keldysh has been a member of the Presidium of the USSR Academy of Sciences since 1953, and is active in a number of scientific societies.

MORRIS OSSIPOVICH MENDELSON, philologist, senior scientific worker and professor at the World Literature

Institute of the USSR Academy of Sciences, is also a graduate of CCNY, Class of 1926. He is a specialist on American literature and the author of two books on Mark Twain. He is currently writing a book on the contemporary American novel.

NIKOLAI R. MIRONOV is a Soviet public figure and Party official. He is the author of many articles on Soviet internal policy. He was born in 1913 and is a graduate of the University of Dnepropetrovsk.

YEVDOKIA GRIGORIEVNA BATURINA, born in 1914, was a kindergarten teacher for 16 years. A graduate of the Pre-School Education Department of the Moscow Extramural Pedagogical Institute, she was for some years a research staff member of the Pre-School Education Methodological Center of the Ministry of Public Education of the Russian Federation, and is at present its Deputy Director.

THE purpose of THE SOVIET REVIEW is to provide readers with a significant cross-section of articles published in Soviet periodicals in the fields of literature and the arts, social analysis and criticism, and science and technology. THE SOVIET REVIEW makes these translations available for information and research; and the publication of an article implies neither approval nor disapproval of its contents.

THE SOVIET REVIEW is published monthly by International Arts and Sciences Press, 156 Fifth Avenue, New York 10, N.Y. M. E. Sharpe, Editor and Publisher, Jean Karsavina and Fred Ablin, Associate Editors. F. A. Manson, Circulation Manager.

\$6.00 per year, 60 cents per copy. ©Copyright 1961 by International Arts and Sciences Press, All rights reserved.

The Organization and Objectives of Soviet Science

by Academician M. V. Keldysh

This report was delivered before the first USSR Conference of Scientific Workers by the President of the USSR Academy of Sciences. It deals with the reorganization of the work of Soviet scientific establishments in the areas of planning and coordination and discusses the fundamental tasks of science in its major branches. The introduction to the report, omitted here, indicates that the USSR Academy of Sciences has become that country's largest scientific establishment, supplemented by a widely ramified network of industrial research institutes and laboratories and by Republic Academies which have become independent centers of research. Observing that scientific investigation repeatedly results in decisive economic and technical changes, the introduction cites the work of a number of leading Soviet scientists who have made outstanding contributions in their fields. "Soviet Science and Communist Construction," *Pravda*, June 13, 1961. Slightly abridged.

Problems of Organization of Research Work

IN THIS PERIOD of comprehensive communist construction the Party has set before Soviet science and technology the task of taking a world lead in the decisive spheres of their work. In order to accomplish this objective we shall have to establish still higher standards for research and to improve organizational forms. This should therefore become the major goal for the recently organized State Committee of the USSR Council of Ministers on the Coordination of Research Work and for all of the country's scientists as well.

The decision of the Central Committee of the CPSU and the Council of Ministers makes possible the elimination of substantial drawbacks in the organization of research. Previously the resources of our numerous research institutes were distributed among 170 Union and Republic ministries and departments, each of which was concerned with its own sphere of activity. There was little coordination. Plans for utilizing the results of research were often

separate from design plans. Nor were any provisions made for experimental bases to ensure the construction of pilot installations.

There were cases where implementation of important research results was endlessly delayed. As an example, the assembly principle in instrument-making was evolved by the Institute of Automation and Remote Control as far back as 1950. Its implementation would have meant considerable savings for the state. But the instruments created were not put into production until 1956-1957 — and then only in small quantities.

In spite of the efforts of scientists there was a similar delay of more than 10 years in introducing new methods of production for synthetic fiber-forming polymers (enanths), though these are far superior to capron materials.

At times implementation of research results is slow because their practical importance is underestimated by the scientists themselves. Thus in 1954 a new principle was evolved for using semi-conductor instruments as nonlinear capacitors. Yet we did not start actual work on their improvement and utilization until after the foreign press reported their being used in what is known as parameter amplifiers.

Similarly, great difficulties arise when implementation calls for coordination of efforts between departments or for additional research in allied fields. Soviet chemists, for instance, were the first to synthesize stereo-regular polyisoprene rubber, whose properties closely approximate natural rubber. Yet because not enough was done to overcome technological difficulties we are now lagging behind the United States in production of this important material.

In many enterprises the introduction of automation is slow because too little attention is given automation when plant and machinery are designed and the sequence of operations planned. Comprehensive automation calls for wider coordination between the work of various establishments.

Often proper utilization of research results depends on the work of organizations subordinated to various departments. In the chemical industry, for instance, the elaboration of laboratory synthesis, designing and construction of an experimental installation, determination of its specifications, and the designing and building of an industrial installation are often consecutively carried out by separate bodies.

In some cases scientific investigation remains uncompleted because an institute lacks experimental equipment. At other times several institutes build parallel testing installations, none loaded to capacity. Testing equipment should by and large be concentrated in large establishments capable of catering to the needs of other research and design bodies.

Granted that in certain vital spheres where every effort should be concentrated on finding new solutions, parallel research may be justified. Nevertheless duplication is not justified as a rule and may assume distorted forms. For example, about 100 bodies are today working on the problem of direct conversion of heat energy into electric power. On a nation-wide scale their efforts are not directed at any specific tasks nor their spheres of research delimited. This means unnecessary duplication of work in certain areas and a resulting lag in other equally important ones. Moreover, usually each body seeks to get from its department as much money and material as it possibly can for building its own experimental installations.

Duplication of effort often results when a research institute, department or economic council finds it more convenient to set up its own establishment rather than coordinate its activity with neighboring bodies which may even be doing a better job. It is important to combat these tendencies leading to dissipation of both effort and means.

Delays in introducing scientific achievements in production are largely due to lack of unified planning and coordination between institutes, design bureaus and industries.

It seems advisable to increase allocations for scientific research and experimental designing in proportion to the economic effect derived from their results.

Measures should be taken to strengthen the experimental base for scientific research and improve pilot installations for the designing bureaus. Special attention should be given rational territorial distribution of these establishments. This may be achieved through setting up designing bureaus and laboratories at plants.

It will apparently be necessary to elaborate measures for encouraging enterprises to introduce new machinery. Encouragement should be proportionate to the economic effects derived and to the

significance of the new machinery for the national economy as a whole.

There are also a good many shortcomings in the work of the Academy of Sciences itself, largely because some of its institutes are working only on sub-problems and also because branch institutes have been set up within its framework. At the same time a number of areas of paramount theoretical and practical importance are not receiving proper attention.

For instance sufficient work is not being done in the sphere of cybernetics. Here investigation should be intensified and concentrated in a single special institute or coordinating council.

Our economists have not been paying proper attention to theoretical solutions of such urgent national-economic problems as the improvement of long-range planning methods, effectiveness of capital investments and new techniques, price formation and material incentives in industry and agriculture. The newest mathematics and computer techniques are not being sufficiently utilized in economic studies.

Due to lag of concentrated effort there is also a lag in the solution of certain important theoretical problems in the field of biology.

Another essential shortcoming in some of our institutes is dissipation of effort over a large number of problems and inertia in switching over to new problems. There are cases where investigation has been undertaken without the proper scientific preconditions to guarantee success. One case in point has been the work on forecasting earthquakes.

The decision adopted by the Central Committee of the CPSU and the Council of Ministers, *On Measures for the Improvement of Coordination of Scientific Research in the Country and the Work of the Academy of Sciences of the USSR*, dated April 3, 1961, has paved the way to swift progress in research, experimental work and designing, both in regard to industry and scientific investigation throughout the country. The measures provided in this decision provide for the most rational alignment and utilization of scientific forces and material means on a nation-wide scale in the accomplishment of the tasks confronting Soviet science in the period of comprehensive building of communism.

The creation of a State Committee of the Council of Ministers

of the USSR for the Coordination of Scientific Research will enable our scientific establishments subordinated to various departments to concentrate on early fulfillment of research projects in relation to major problems of national economic significance and to ensure further and still greater advances in the near future. The tasks set before the Academy by this decision are bound to have a positive effect on its work and will step up its research in the natural sciences and the humanities and stimulate elaboration of theoretical problems.

Planning and Coordination

Planning and coordination are the factors which govern the organization of research. One of the key conditions for success is proper initial determination of what are the key problems on which efforts and means should be concentrated. It seems advisable to incorporate these problems in an overall state plan, and this should consist of the following three subdivisions:

- 1) Major national economic problems now in the experimental design stage.
- 2) Long-range scientific investigation projects directed at the solution of national economic problems which have already been defined.
- 3) Exploration of the laws of nature in the hope of opening new avenues of progress.

The first category should deal with such problems as automation, polymers, gas turbines, new metals and alloys and so forth. To solve such problems will require the joint effort of many scientific, designing and production bodies. By way of example, to solve automation problems it will be necessary to develop investigations in the spheres of mathematics, mechanics, physics, chemistry and electronics. Metallurgy and the chemical, engineering and allied industries will be required to elaborate the sequence of operations and methods of control, corresponding to the current possibilities of automation.

The diversity of problems and the exceedingly wide scope of application of polymers in all branches of industry, construction, agriculture and medicine, demand that alongside of experts in high molecular compounds chemist-experts from other areas as well as physicists, mechanics, biologists and medical workers join in

this work. Today no less than 300 scientific, experimental and industrial organizations are engaged in this field.

An overall plan should also provide for the consecutive implementation of all stages of work, the unification of all research, experimental and design efforts and the introduction of the results into the economy. It is a great mistake for various industries to adopt and even encourage the practice of isolating research plans and the introduction of subsequent results. Plans should take into account the division of labor between various industries and organizations, the financing of material and technical supplies, construction, etc. It goes without saying that such plans should provide not only for the work of research institutes but also for design bureaus, factory laboratories, experimental plants and industrial works. An integral part of the plan should be careful estimation of the economic results which may be hoped for in industry. Here our economists have their work cut out.

The Academy of Sciences should actively participate in providing the theoretical researches necessary for introducing new technological principles into industry.

We know from experience that the requirements of everyday life often lead to emergence of new trends in the work of the Academy of Sciences and similar institutions. Examples of this may be found in certain branches of physics; in new methods of approximate solution of complex mathematical problems, in radiation chemistry and radiation biology research, in geochemistry, plasma physics in relation to the atomic industry, in mathematical logics, controlled processes, and the theory of information in connection with automation problems.

It is also necessary to develop new schools of mechanics connected with the specific structures of polymer materials and to introduce them on a wide scale in the polymer industry.

The second section of the plan—to deal with such long-range problems as thermonuclear fusion and the direct transformation of thermal energy into electricity—should make provision for research, the creation of large-scale experimental installations and preliminary design work. Factories and industrial design bureaus do not participate at this stage and no industrial installations are built. It is not always possible to determine accurately the economic effect of the work done. This research should be carried

out by the USSR Academy of Sciences, the Republic Academies, the major branch institutes and other institutes of higher learning, with industry responsible for manufacturing the experimental installations.

In drawing up the first two sections of the plan we should take into account that various industries make varied demands on various branches of science. For example, the aircraft industry is not the only one interested in problems of aerodynamics. As a rule these isolated requirements have in common certain questions best solved in a single research institute rather than in several different ones. It is up to the Committee's Learned Council to sum up the practical demands made in various areas and to channel for concentration at the institute best suited for the purpose the solution of the problems raised. Naturally when several different approaches are indicated parallel researches will be conducted, encouraging creative competition between research teams for the speediest and most effective solutions.

The third and final section of the State Plan should be an overall plan for basic research. This should outline the broad spheres of exploration where important discoveries and new principles of applying the laws of nature to technological processes may be expected. Correct channeling of fundamental research is dictated by the logic of scientific development. The planning of fundamental research is extremely difficult and should therefore be in the hands of our most qualified scientists. Preparation of suggestions for this plan is one of the most important tasks of the USSR Academy of Sciences.

Specific discoveries are impossible to predict. They come about as the result of comprehensive exploration of promising fields. However, in every age there are manifest certain scientific trends revealing through their development the underlying laws which may be expected to provide new principles for practical development. Examples for our time are the physics of high-energy elementary particles, the chemistry of polymers and biopolymers, nuclear physics, solid state physics and cybernetics. The most important spheres of modern science are those which penetrate deepest into the structure of matter, study various transition processes and processes in human activity and in living organisms, particularly the functions of the brain. The advances in chemistry

and physics due to the study of molecules, the atom, the nucleus and elementary particles are other cases in point. There is also the study of reaction processes in chemistry. In biology, equally decisive breakthroughs may be expected in the study of the molecular structure and functions of the living cell and its nucleus and the main physiological processes of the organism — photosynthesis, protein biosynthesis, etc.

The application of new ways and means of research often has a profound effect on scientific development, and the application of the methods of one science to another can be highly fruitful. This is how chemical physics, biological chemistry, biophysics, geochemistry, geophysics, biogeochemistry and other branches of science emerged. Sometimes the creation of a new instrument leads to the development of a new branch of science, as was the case with the microscope, the telescope and spectroscope. Today we see the electronic microscope in molecular biology and microwave radio spectroscopy intruding on a wide scale in physics and chemistry.

New and important discoveries may be expected as a result of studying the phenomena of nature under conditions of extremely low or extremely high temperatures, extremely high potentials and super-high pressures, as in the study of elementary forms of life in the purest state — for example, viruses. Such work affords opportunities to discover fundamentally new phenomena — superconductivity and super-fluidity, formation of elementary particles influenced by the energy of the atom in bevs, etc.

We have already said that practical demand vastly influences scientific developments. Thus modern technology resulted in extensive study of rare and diffused metals and their alloys. The demands of atomic and semiconductor technology elevated analytical chemistry to unprecedented heights. High-speed treatment of hard materials stimulated already successful work on the synthesis of diamonds.

The all-round development of the entire national economic organism demands heavy industry ensure the development of all branches of the economy and the production of consumer goods. In this decisive phase of economic competition with the capitalist system our technology must develop more rapidly than heavy industry. The natural sciences, as the basis of technical progress

and the chief source of technical ideas, must outstrip technological development. We must take all this into account when drafting overall state research plans. Just as in industry we raise the general level while concentrating on certain decisive sections, so in science, while concentrating on the leading problems in areas where we know possibilities for practical application do exist, it is necessary to ensure a general overall program.

In planning this program and its eventual introduction into the national economy we must never forget that new unexpected data may require substantial changes in plans and even draw new organizations into the work. Accomplishing set aims in the shortest possible time depends largely on the efficiency of current planning.

Adequate supplies of scientific equipment and instruments are essential for successful research. Up-to-date equipment means virtually unique powerful structures such as wind tunnels, accelerators of fundamental particles, visual and radio telescopes, computing installations, testing machines and stands. Extremely delicate precision equipment is required in physics, chemistry, radio engineering and modern biology, in various industries and in medicine. Metrology must be put on a proper level. Production must be organized of a wide assortment of reagents and highly pure substances. Scientific organizations often devise new instruments in the process of their researches but even when these are general-purpose instruments they do not always reach the consumer. The State Coordinating Committee will undertake to coordinate work on new instruments and set up a scientific-instrument-making industry.

The new committee must ensure effective coordination of important inter-departmental problems. This work will according to decision be entrusted to special state committees, ministries and departments, and in individual cases to the main institutes under the general supervision of the Coordinating Committee. Also according to decision the Academy of Sciences will be responsible for coordinating work on a number of long-range scientific, technical and research problems. Academicians, particularly members of technical science departments, must participate in coordinating scientific and technical problems in the State Coordinating Committee, in specialized committees, in ministries, departments and major institutes.

An important method of coordinating science and technology will be through the scientific problems councils of the State Coordinating Committee of the USSR Academy of Sciences and of other departments and major institutes. To some extent such councils are already functioning. From now on this method of coordination will help solve a gamut of complicated problems and figure importantly in combining efforts and dovetailing scientific and technological work. Certain conditions must be met for these councils to justify their purpose. In addition to scientists they must include designers and leaders of corresponding industries. The council members must attack their problems energetically. The councils must be given responsibility for certain research, designing and experimental work and also certain powers.

No less important is the correct determination of the problems around which the councils are to be formed. These should not be too numerous; but they should be major ones for the corresponding branches of technology and science.

It is necessary to further develop the social forms of coordinating research. Here an important role can be played by the press, by scientific and scientific-technical societies, conferences and congresses in discussing results of research projects and ways and means for their further elaboration. We should also give thought to utilizing science prizes as a way to stimulate the elaboration of important problems via competitions.

Another important task for the State Committee is to improve the network of research institutions. This involves reorganization of existing ones in line with the demands of new urgent trends and also setting up new research establishments. There is also the problem of bringing science and production closer: the setting up of specialized scientific centers in outlying districts, the development of a network of factory laboratories. We must look into the question of combining specialized design institutes with production organizations. Certain specialized problems which have come up at large institutes should be transferred to factories, with new laboratories set up at the factories or existing factory laboratories expanded and strengthened.

It shall be a major task for the USSR Academy of Sciences, as part of the country-wide system of research, to conduct studies on major theoretical problems in the field of natural sciences and

the humanities, methodological leadership and coordination of research in these fields to be the responsibility of the Academies of Sciences in the Union Republics and higher educational establishments.

By transferring to industry about half of the Academy's research institutes concerned with elaborating problems of a specialized nature it will become possible to concentrate means and forces on solutions of major important tasks facing the Academy. By transferring a number of institutes to those departments whose work parallels their own a closer link will be established between these institutes and corresponding branches of industry and agriculture. This will help raise the level of research in the corresponding branches of the national economy.

In order for the Academy to conduct large-scale activities, it will be necessary to determine which are the most important fields of fundamental research and the most promising scientific and technical problems, so that the efforts of the institutes of the USSR Academy, the Union Republic Academies and higher educational establishments may concentrate fully on them. At the same time the Academy must take an active part in the work of the State Committee's councils on major scientific and technical problems.

The Academy must strengthen its ties with industry by participating in solving the problems of the national economy. The practice, already initiated of organizing laboratories at industrial and agricultural enterprises to facilitate introduction of results of scientific research, should be continued.

Concentration on major scientific problems demands that the institutes be further relieved of small specialized projects and researches which have lost their urgency.

Coordination of research conducted by the USSR Academy and the Union Republic Academies should be improved. Inasmuch as it must also coordinate the work in natural sciences and the humanities with the higher educational establishments the Academy faces new tasks.

Research and Training at Establishments of Higher Education

Establishments of higher education must play an important role in the further development of science. About 50 per cent of the country's research workers are concentrated there. Yet not all these establishments conduct research on a proper level. A gap exists between research institutes and institutions of higher learning. It is an anomaly for some scientists to teach and others to do research work. When this happens, the quality of instruction deteriorates sharply. The reason why an insufficient amount of research goes on at higher schools is that lecturers' teaching schedules are overloaded, research appropriations are low and experimental centers poorly equipped. This situation may be remedied if, with further development of the overall network, special laboratories and institutes for research into major problems forming part of the overall state plan are in the future set up in establishments for higher learning. This approach has already given good results. It would also help better to equip our higher schools. Arrangements should be made for lecturers taking an active part in research to be given lighter teaching schedules.

The question of establishing closer ties between major research institutes and higher educational establishments should be carefully considered. For instance, the Academy should establish closer contact with the Moscow and Leningrad Universities, the Union Republic Academies with the universities in their cities. In this way the research work of various university departments will be combined with that of corresponding laboratories at research institutes. Some of the industrial institutes should be more closely linked with higher technical schools. In this connection the practice of the Moscow Physics-Engineering Institute of keeping in regular contact with certain other institutes has justified itself. The most capable senior students should be drawn into research work and receive practical training at research institutes.

Higher educational establishments should play a major role in ensuring the proper scientific level. To coordinate work in this area the Academy should enlist prominent scientists teaching and working in these establishments for participation in councils on special problems.

Public forms of coordination of research must also figure prominently in improving the level of work at higher educational establishments. The participation of lecturers from higher schools in the work of scientific societies and conferences should help draw them into participation on urgent scientific problems. Here we must regretfully mention that the work of scientific societies in our country has fallen off considerably in recent years.

A few words regarding the press in the higher schools. The number of publications put out has increased in recent years. But these are largely of local significance and often carry poor articles. Owing to the diversity of subject matter they are not widely circulated. It would be better if the schools issued large specialized magazines. Their papers would then be more widely utilized by specialists and discussed by men of science.

Improving the level of our scientific personnel is an important and urgent problem. I shall not dwell on the question of scientific training at higher-education establishments, since this is properly a subject for special conferences. It should be mentioned however that an essential part of our long-range plans for the development of science and technology is a long-range plan for training personnel. Modern technology, physics, mathematics and mechanics all badly need more scientists.

Correct choice of young scientific personnel is of utmost importance. It is not unusual for young specialists without any great ability to remain in scientific institutes where they do no particular good. Yet these people could be utilized elsewhere. A proposal for young scientists to work on probation for a period of two or three years should be put forth. The probationary period over, only those should remain as researchers who have displayed ability for creative work.

To improve the level of scientific personnel in another way the system of sending specialists from industry, specialized institutes and institutions of higher learning to major institutes for post-graduate training—especially for research in specific fields—should be more widely used. The practice of sending specialists from Republic Academies to the institutes of the USSR Academy has shown good results. The Academy should do more work in training such researchers.

The relatively advanced age of highly qualified scientific workers

calls itself to our attention. For example, out of 4,000 scientists whose Doctor's Degrees were confirmed by the USSR Certifying Commission in the past ten years 2,000 were over 50 years of age. The percentage of scientific workers of the highest qualification in relation to the overall number of scientists has decreased in the last few years. Measures should be taken to promote the training for independent research of scientists no older than 30 or 35 years of age.

In addition to the fact that the scope and forms of work in training highly qualified personnel do not satisfy the ever-growing requirements, there are elements of formalism in conferring scientific degrees. The conventional system of awarding degrees may be expedient. But there are cases of persons writing theses merely for the sake of receiving a degree, while scientists engaged in practical work and making real contributions fail to get degrees because they lack the time for putting their theses in proper shape. A thesis should be the result of research. At the same time, when a degree is conferred an applicant's entire scientific activity should be taken into consideration. Here the existing system of periodic competitions and certification at research institutes plays a positive role. However, the entire system of selecting scientific personnel needs improvement.

Science's Fundamental Tasks

The purpose of organizational measures is to help facilitate the solution of the main problem, that of bringing all spheres of Soviet science to the fore in relation to world science. What, in light of this, are the most promising directions in which our science should develop in the period of all-out construction of communism?

Power and Nuclear Physics

The task of 100 per cent electrification of the country has been a central one in the overall program of socialist construction ever since the first days of Soviet government. Success in the solution of this enormous undertaking is first of all determined by exploitation of the most economic sources of electric power and creating the most effective methods of transforming various types of energy into electricity.

Great as the reserves of coal, oil and gas may be, the growing rate of consumption acutely poses problems of thriftier utilization and finding new sources of energy.

The most promising prospects for new sources lie in exploration of the atomic nucleus and the nature of elementary particles and their interactions. Important newly-discovered properties of matter are now being employed on a steadily increasing scale in various technological and scientific fields. Theoretical and experimental research in nuclear physics and the physics of elementary particles should become one of the main spheres of scientific development. Here the principal task is to study the laws and nature of the forces acting between the component parts of the nucleus and resulting from the interaction of particles. Such further study should make it possible to evolve a theory of elementary particles and to discover the ways and means of putting entirely new physical phenomena to technological use.

Controlling thermonuclear fusion constitutes today one of the major problems for the power industry. Once this is solved mankind will be rid forever of apprehension regarding the adequacy of the earth's energy reserves, since reserves of heavy hydrogen are virtually inexhaustible. But the difficulties in the way of controlling thermonuclear reactions are still immense. The problem is not only to heat matter to temperatures of hundreds of millions of degrees but also to maintain this "superstellar" temperature in plasma long enough for atomic nuclei to interact. Soviet scientists have already put forward a number of fundamental ideas for solving problems of thermonuclear synthesis and obtained important results in the field of super-high temperatures. A tremendous amount of work remains to be done however before there can be any practical application of thermonuclear synthesis to the power industry.

The study of high-temperature plasma represents an important division of physics and already finds application in a number of other areas.

Atomic power stations working on fissionable atomic fuel must be perfected and expanded, with the aim of determining optimal types of atomic reactors and the most effective cycles for transforming thermal into electric energy.

It is planned in the near future to expand work on increasing

the efficiency of transformers of thermal energy. This work will be conducted along the lines of increasing the efficiency of conventional thermal machines and creating new, so-called machineless generators based on entirely new principles. Achievements in the exploration of plasma and the production of new semi-conductor materials for thermo-cells have placed on the plane of reality the new problem of creating machineless thermoelectric transformers with an efficiency of 50 and even 60 per cent. Solution of this problem will lead to a virtual revolution in modern power engineering since it will dispense with heat engines, steam boilers, turbines and other mechanical systems which are currently used as intermediate transformers of thermal energy into electricity.

It is also necessary to push forward work in the sphere of direct transformation of fuel energy into electricity. In this field we may look forward to transformers with an efficiency of 70 per cent and higher. Research should also be conducted in the use of solar energy.

Along with this fundamental research, work will be done on an ever increasing scale to perfect thermal and hydraulic electric stations and to elaborate more economical methods of power transmission.

The wide-scale introduction of natural gas and petroleum products into the country's power balance sheet brings to the fore the task of creating powerful electric generators working on these fuels. Here work should be done simultaneously in two promising directions: on open-cycle gas turbine units with high initial pressure and on combined steam and gas turbine installations.

The widespread introduction of high-tension transmission lines with an AC voltage of 600 to 700 kv and a DC voltage of 800 to 1,200 kv for transmitting current of several million kw to a distance of 2,000 to 3,000 kilometers will make it possible to reduce the overall losses of electric power transmission by several per cent.

Engineering, Mechanics, Thermophysics

There are two main directions in engineering. The first is the creation of machine complexes for flow production and automatic process control. Closely linked with this is the large-scale mechanization of production sequences.

The other direction is that of creating heavy-duty installations such as gas turbines, aircraft engines and finally rocket motors.

In connection with this it is important to study materials at extremely high mechanical and thermal loads. The behavior of substances at temperatures generated in modern engines is still being inadequately studied. At the flight speeds of modern aircraft and space vehicles we encounter new physical phenomena which make further research necessary in new spheres of mechanics, thermophysics and other sciences — elaboration of the theory of strength at high temperatures and the study of processes taking place in solid matter at high speeds are good examples. Aerodynamics must study the motion of gas at very high temperatures when dissociation, ionization and other chemical transformations take place. In the interests of technology it is most important to raise the standards of research in the sphere of thermophysics.

Automation, the Theory of Control and Communication

To attain the highest possible productivity of labor is an essential precondition for the victory of the new social order. Wide-scale development of automation, especially of productive processes, is the main condition for the realization of this goal.

Automation of the means of production requires the elaboration of new technological processes and methods of controlling them as well as new approaches to designing installations with due allowance for future automation. This raises important new problems for machine builders, chemists and metallurgists in many branches of technology.

Also assuming ever greater importance is automation of various forms of mental work that can be expressed in the form of logical and mathematical operations. Covered are such fields as planning and accounting, complex computations, projecting and processing all kinds of information. It is hard to say how far automation may go in various fields of human endeavor. But there is no doubt that vast prospects are opening up for relieving man of those forms of mental work which can be mechanized, releasing him for higher forms of intellectual effort.

The theory of processes of automatic control is a vitally important new branch of science — the main trend of cybernetics. It

will be necessary to work out methods of mathematical description of a wide range of processes and develop principles of optimal solution of problems as well as foundations for designing computing, controlling, information analysis and other installations. Special attention must be given to elaboration of so-called self-tuning or self-learning systems capable of adapting themselves to external conditions and of finding optimal solutions under these conditions. In connection with the study of control processes great importance attaches to the analysis of the processes of thinking, analysis and simulation of control processes in living organisms.

New fast electronic computers have opened up ample opportunities in the field of automation. Development of the principles of their design and increase of their speed are essential for broadening the uses of automation.

Closely connected with large-scale development of automation is the task of coding, storing and communicating information not only within the automatic devices themselves but also over long distances. Thus control of objects in space calls for rapid transmission of information from remote parts of the country, for automatic preparation of commands on the basis of information received and for transmission of the commands for the purpose of controlling the object. To perfect methods of control within the national economy calls for radical improvement of rapid communication of information. The development of the national economy, of science and culture, requires considerable increases in the amounts of transmitted information. Hence the need for more research in the field of radio and television.

Radioelectronics

The basis for the realization of control processes and the solution of communications tasks is provided by radio engineering and electronics. These also offer the broad basis for developing modern measuring and control devices for industry and agriculture, for development of new methods of scientific research and reaching into medicine and other fields. Electronics and radio engineering are of tremendous value in research work, beginning with the electronic microscope which makes possible the study of the structure of matter and going on to such powerful installations as acceler-

ators that solve the riddles of the atomic nucleus and radio-telescopes for the study of distant worlds that make it possible to establish communication over cosmic distances. Radioelectronics provides the basis for effective new methods of diagnosis and treatment of disease. Radio waves will doubtless make it possible to influence chemical reactions and processes in living organisms. Along with roentgenology, cardiography and many other methods of examination of the human organism, there are now prospects for developing instruments capable of serving as artificial hearts, lungs and kidneys.

Extremely important work faces electronics, physics and chemistry in regard to creating new elements in instruments and systems. This includes the utilization of new properties of semiconductors and dielectrics, molecular and atomic phenomena for precise time measurement, the application of new properties of crystals and so forth. The study of phenomena in electric plasma, and their application, is becoming an important branch of radiophysics.

In electronics miniaturization — the reduction of dimensions of electronic instruments and devices — deserves particular attention. Expansion and complication of functions of electronic systems mean increasing their complexity, size and power consumption. The biggest can now barely be housed in huge halls and consume hundreds of kilowatts of power. The establishment of new properties of crystals and the application of film units open up prospects for radical reductions in the size of electronic installations.

A series of major theoretical questions are connected with techniques of communicating information. Great importance in this respect attaches to mastery of new ranges of electromagnetic oscillations. The utilization of shorter-wave ranges will make possible transmission of vast amounts of information through waveguides and concentration of radiation streams in narrow beams with moderate size aerial systems, and will open up new opportunities for radiolocation, radionavigation and communication over great — even cosmic — distances. There is also promise of greater opportunity in the infrared and optical wave ranges. Vastly important for solution of these problems is the development of quantum-mechanical generators and amplifiers of the optical range and the study of monocrystals of various substances. It is also essential to cut down operational noises in receiving and transmitting devices. For

this purpose radiophysicists have new methods based on the use of quantum-mechanical systems, parametric amplification, etc. As distinct from ordinary semi-conductor instruments, quantum amplifiers operate at very low temperatures, making it possible to reduce noise to a minimum.

Along with the ever-growing importance of electronic instruments and automatic systems goes the problem of increasing their reliability. It is impermissible that in installations incorporating thousands of electronic and mechanical elements the breakdown of one or even several elements should lead to work stoppages. Reliability of elements must be improved. Still more important, we must learn methods of building complex systems that will continue to operate reliably in spite of breakdown of several elements, much as the living organism continues to function normally in spite of disturbances. A number of principles are already being suggested but the basic task is to create theoretical foundations for ensuring reliability.

Mathematics

The mathematical problems relating to automatic control demand considerable expansion in developing the theory of control processes, elaboration of logical principles in device circuits, the theory of reliability and the theory of information in all its aspects. These new fields closely touch mathematical logic and the calculus of probability. Computing machines provide endless possibilities for expanding the range of application of mathematical methods in physics, chemistry, technology, economics, biology and even philology, helping them become exact sciences. Development of new methods of theoretical mathematics is assuming ever greater importance.

Solid State Physics

Such fundamental developments in electronics as the creation of quantum generators and semi-conductor instruments are due to exhaustive research in solid state physics. This is one of the main fields of modern physics and it opens broad vistas in other spheres as well. The study of the properties of crystals makes possible manufacture of many midsize electronic devices. Research in solid state physics will also doubtless lead to major solu-

tions of the problem of strength of materials. We can look forward in the very near future to seeing the strength of various metals and other technically important materials increased many times over. The study of the properties of matter at low temperatures will lead to creating strong magnetic fields at low power. This promises many practical applications. The development of research in solid state physics is one of the cardinal tasks of physics.

Materials

The emergence of new branches of technology calls for creating a variety of new materials. Success in utilization of new materials is largely determined by expansion of research in the physics and chemistry of metals, their alloys and compounds. Here theoretical work should be aimed at establishing the general laws describing the dependence of the interaction of metals on their place in Mendeleev's Periodic System. It should develop on the basis of physico-chemical analysis. Theoretical research will be used in industry and technology for producing new alloys with planned properties, for finding methods of working them and suggesting the spheres of application of new metals. The nuclear power industry needs for its development materials capable of sustaining high temperatures, resistant to corrosion in specially aggressive media and having stable properties unchangeable under radiation. Rocketry and high-speed aviation cannot develop without light structural and refractory alloys. These demands for special materials can be met by utilizing a range of new metals, their alloys and compounds.

The task facing metallurgy today is elaboration of new, economically expedient processes of metals production, the intensification and automation of metal-reduction processes from ores and the development of methods of obtaining super-pure metals. The use of vacuum techniques in metallurgy and direct reduction of iron promise a great deal. Metal processing in an inert medium and the introduction of electron-ray smelting offer opportunities for improving the quality of finished products.

Chemistry

Chemistry is of vast importance in the development of our economy. The expansion of industry calls for cheap raw materials, for

the development of new, simple and economical production processes, for elaboration of fully automated production units to ensure high purity and quality. In order to create new types of rayon fibers, rubber and plastics we must expand theoretical research in the area of polymerization and controlled synthesis of new high-molecular compounds; also to perfect existing polymers. It is equally necessary to study polymer macrostructure and to lay the theoretical foundations for using them in the manufacture of finished products.

One important purpose of this research is the production of polymer materials with planned properties, high strength, heat and chemical stability and other specific properties, such as the electric and the magnetic.

Included here are research projects aimed at producing new types of high-molecular compounds, particularly compounds with conjugate bonds in the main chain; the synthesis of macrostructures and the synthesis of organometallic and inorganic polymers.

Equally important are projects in the area of fine organic synthesis of substances for producing physiologically active medical preparations, chemicals for combatting plant pests and diseases, herbicides, growth-stimulation substances and other structurally complex substances.

Research into physiologically active substances is closely linked with the study of chemical problems in the field of biology. At the junction of the sciences there have appeared bio-organic and biophysical chemistry. Their rapid development should be facilitated in every way.

The study of the physico-chemical mechanism of biological processes will prove tremendously significant in applying the principles of chemical reaction in biological processes to chemical technology.

Increasingly important is radiation chemistry, aimed at employing the radiation energy of fissionable material for such chemical processes as radiolysis, polymerization, etc.; also photochemistry, especially as it relates to the possibility of harnessing solar energy.

In expanding research into reactions under conditions of super-high temperatures and pressures and under low temperatures we may anticipate high-speed chemical reactions, so that it may be

come possible to obtain substances which under ordinary conditions cannot be synthesized.

The central task of inorganic chemistry and the chemistry of organometallic compounds is exhaustive study of the properties of the elements of the periodic system and their compounds, not yet in use, with special stress on so-called rare and dispersed elements.

In this field we may look forward to creation of new semiconductor, magnetic and optical materials, refractory alloys, super-strong ceramics, etc. Special mention should be made of the role certain elements may acquire in agriculture in connection with their use as microfertilizers.

The study of pure substance is another new area. Its central aim — to obtain super-pure substances, primarily for semiconductors and for medicine — cannot be overestimated.

For successful solution of important chemical syntheses and corresponding technological questions it is necessary to carry out a systematic study of the relationships between the structure, state and properties of substances. The problems of synthesis are connected with processes involving the transition from one compound to another. The determining factor here is process speeds. This puts emphasis on questions of catalysis and the kinetics and mechanics of chemical reactions. Also very important are the chemical and physico-chemical phenomena occurring on the borderline between different states.

Biological, Agricultural and Medical Science

The resolutions of the 21st Congress of the CPSU noted that the development of biology was the primary theoretical prerequisite for the advancement of both medical and agricultural science. It is necessary to strengthen the ties between biological research and agricultural and medical practice.

A major task in agriculture is to attain a high enough level of production to allow for an abundance of products for the needs of the population along with sufficient quantities of raw materials for industrial use.

Speaking at the January Plenary Meeting of the Central Committee of the CPSU N. S. Khrushchev noted how impossible it was

to make progress without science and how vital it was to pay more attention to agricultural sciences, since these are connected with life, help production and advance it.

Breeding highly-productive varieties of crops and strains of livestock, utilization of more effective systems of soil and plant cultivation, wide-scale use of rational systems for fertilizing and harvesting crops, introduction of the most advantageous systems of farming according to natural and economic zones — these are the immediate tasks confronting agricultural science.

The Party and the Government are showing great concern for the health of the people. The special decision of the Central Committee of the CPSU and the USSR Council of Ministers *On Measures for Further Improving Medical Services and Safeguarding the Health of the Population* characterizes the main problems of health services. These are first of all to find methods and means for effective treatment and prevention of mass infectious diseases, methods and means for the treatment and prophylaxis of cardiovascular diseases, discovery of the causes of cancer diseases and elaboration of measures for their prevention and effective treatment, and finally the problem of longevity. Medicine, biology and chemistry figure importantly in future solutions of these problems.

One of the characteristic features of the present stage of development of biology is study of the internal organization of the processes of vital activity, or penetration into the microworld of the cell and its nucleus — cognition of vital processes and their control. Enormous opportunities are inherent in methods now employed in physics and chemistry which provide new analytical approaches and powerful sources for influencing the organism. The resolutions of the 21st Congress note that the importance of the whole complex of biological sciences will increase to the extent that the achievements of chemistry and physics are utilized in the field of biology. This in turn will be of vast significance for utilizing in chemistry and technology the principles governing reactions which take place within organisms.

Research into proteins and nucleic acids which constitute the living world and determine the major manifestations of vital activity is growing in importance. Chemistry is now close to achieving artificial synthesis of proteins with the known properties of natural compounds and also with new predetermined properties.

The synthesis of such compounds as ferments and hormone substances which increase the immunity of the organism will be of special significance.

We know what results have already been obtained in creating new valuable varieties of plants and livestock by hybridization and selection. Further opportunities exist here. Physical-chemical methods of producing new forms of organisms are also promising. In this respect preparation of exceptionally active antibiotics media, the activity of which has been increased many times, thus insuring the development of the antibiotics industry, is a vivid example. Mastering heredity changes would open up further possibilities for evolving new high-yield crops and valuable animal strains. In medicine this could lead to combatting malignant tumors whose development is caused by certain properties in affected cells multiplying in the organism.

Science should score decisive successes in cognition of the mechanism of photosynthesis and in preparing for realization of artificial photosynthetic processes outside plants. Activization and control of plant photosynthetic activities should lead to significant increases in plant-breeding productivity. It would also facilitate organization of industrial production of molecular algae with high efficiency in utilizing solar radiation for processing the algae into fodder, food and technical products.

Work on the physiology of plant resistance to drought, frost, salination and disease is important if we are to develop agriculture in districts with diversified and frequently severe natural conditions.

It is necessary to expand research on the nature of viruses, those borderline systems between living and non-living matter. Methods must be found for combatting virus infections in man, animals and plants.

Great opportunities are inherent in microbiology. By directing the metabolism of microorganisms, important antibiotics, vitamins, growth stimulators and intermediate products for chemical synthesis and for foodstuffs may be obtained, eventually important for the national economy.

Thorough study is called for of various chemical, mechanical and physiological functions of the living organisms, especially of

the intricate mechanism governing the functions of muscular activities and of the brain.

Problems connected with space biology will grow in importance in the coming years.

Sciences of the Universe and the Earth

Study of the earth and the whole universe is now vigorously under way. The flights of our artificial earth satellites and space rockets opened totally new avenues for the study of the physical properties of near-earth space, of the more remote areas of outer space and the near-by planets of the solar system. Prospects now exist for interplanetary communication and direct investigation of the planets nearest us.

Sputnik flights help study the conditions of outer space surrounding the earth and the influences of space factors on terrestrial phenomena. Detailed study of the ionosphere will provide new opportunities for forecasting propagation of radio waves. Study of the corpuscular emissions of the sun and their relationship to the earth's magnetic field will help explain the nature of magnetic storms and of the Aurora Borealis phenomena. It is necessary to continue investigation of the earth's radiation belts. In order to guarantee the safety of future space flights we must understand the nature of great increases at times observed in the intensity of cosmic radiation.

Artificial earth satellites will also play an important part in helping solve some of the problems of the national economy. Sputnik observations will help bring about radical improvement in weather forecasts and radio communications as well as in observation of the sun. Utilization of communications and relay sputniks will revolutionize communication methods and television.

The possibility of installing large astronomic instruments on sputniks opens new horizons for astrophysics. The prospect of interplanetary flights calls for profound study of the physical phenomena of outer space, for obtaining data on the structure of the atmosphere and on the surface structure and vital processes of other planets. Instruments installed on interplanetary automatic stations will provide vast opportunities for this type of research.

Man's first flight into outer space is more than a method for

carrying out interplanetary flights; it represents new super-high speed communication. The construction of satellite spaceships, manned interplanetary stations and spaceships for interplanetary flight raises a whole new series of scientific questions the solution of which must involve scientists from different fields. The conquest of outer space will lead to profound changes in the life of all mankind.

The possibility of man's penetration into outer space makes still more important the study of the universe by conventional means. Astrophysics, particularly the physics of the sun and stars, will study thermonuclear processes taking place inside the stars and also investigate the vast "non-stationary" processes in the universe — giant flashes and explosions observed in outer space — which cause immediate emissions of super-high energy particles. The development of radio astronomy methods will also open new avenues for the solution of such important practical problems as methods of prediction of solar activity, methods of forecasting ionospheric disturbances, breaks in radio communications, etc. Powerful optical and radio telescopes will make it possible to study the remoter bodies of the universe.

In the realm of earth physics, radical improvements must be made in weather forecasting, in evolving a quantitative theory of terrestrial magnetism, a physical and physical-chemical theory of the earth to explain the movement and deformations of the earth's crust, and so on.

Since the high rates of development of production in all branches of the national economy call for considerable increases in the output of non-ferrous metals, iron and steel and for sharp increases in the extraction of oil and gas, Soviet geology at present strives to provide the country with reliable sources of minerals and raw materials.

It is necessary to work out new methods of systematic approach to tapping mineral resources situated deep under the earth's surface. Here one of geology's major problems is to formulate the laws of formation and distribution of mineral deposits. A vital part in the solution of this problem belongs to geophysics and geochemistry.

Solution of the technical problem of drilling to the mantle matter, to a depth of 10 to 15 kilometers, or more, will be of tremen-

dous significance. Work on the theory of the processes of ore formation and of the structure of the earth for structural depth drilling should be based on the study of abyssal zones of the earth's crust and the processes taking place there; also on establishing the relationship between the abyssal zones and the earth's surface areas. In connection with abyssal sources of heat it will be necessary to establish the law of differentiation and distribution of abyssal matter. Solution of this problem depends largely on experimental physical-chemical investigations now being carried on regarding the state and behavior of matter, particularly at high temperatures and pressures. Ways have already been found for utilizing abyssal sources of heat on Kamchatka, in the Caucasus and in West Siberia. We still face the task of discovering similar sources in other parts of the USSR.

The ocean depths contain innumerable riches. The study of the seas and the utilization of their resources will help accurate prediction of movement of waters in oceans and seas, thus helping navigation, improving forecasts of weather and climate and fishing forecasts. It will also help determine the vast underwater food, chemical, mineral and other resources and establish ways for their practical utilization. Other problems to be solved will cover the study of deserts, swamps, tundra areas and river systems, their reclamations and rational utilization.

Social Sciences

The most important task facing social sciences, particularly philosophy, is the creative elaboration of problems connected with the building of communism, with educating the man of communist society, with promoting national cultures and bringing nations closer together. There is also the task of elaborating questions of ethics, of the communist outlook and the struggle against bourgeois ideology, reformism and revisionism.

At the present stage of communist construction the economic aspects of the theory of Marxism emerge to the forefront. Here theoretical generalization is possible on the basis of the experience of the Soviet Union and other countries within the world socialist system.

Socialism's greatest advantage over capitalism is the strict

planning of its national economy. The primary task facing our economists is to perfect the principles of organizing and planning the economy. In order to develop more expedient economic planning it will be necessary to make wider use of modern computing machines. Elaboration of an economic and mathematical scheme of large-scale reproduction will make it possible to improve economic and planned computations.

To further increase labor productivity we need elaboration of an economically grounded system of prices, an improved cost accounting system and introduction of material incentives at state enterprises and collective farms.

It is also essential to expand and deepen research into the economic efficiency of capital investments and of new techniques. Economists must work out a system for rational selection of districts to be developed and new industrial establishments to be built.

Research workers in the field of the state and law need to elaborate questions dealing with the transfer of the functions of the state to public organizations and with the formation of communist self-government.

Increased research is called for in relation to the general crisis of capitalism and the collapse of the colonial system, development of the economically underdeveloped countries and the relations between the USSR and these countries. Extensive study must be made of questions of coexistence and competition between the world socialist system and the world capitalist system.

Of vital significance for our time is the elaboration of problems of the history of international relations, USSR foreign policy and the fight for peace. Historians must pay special attention to the history of the national-liberation struggle against colonialism by the peoples of Asia, Africa and Latin America. They must also make a profound study of the laws of human society at all the various stages of its development.

Those engaged in the history of literature and the arts must first of all study the development of the literature and art of socialist realism; also the history of the literature of the peoples of the USSR. On the basis of generalizing the collective experience of the literatures of the socialist camp it will be possible to write a work on the history of world literature.

Soviet linguistics experts face the task of developing Marxist

teaching on language and the laws of its development. Particularly important in this respect are the study of the laws of development of national languages in Soviet society in the present period of transition and the drive for refinement of speech.

The social sciences must develop in close cooperation with natural and technical sciences. Organization and management of the highly complicated and rapidly developing Soviet economy demand, we repeat, creative cooperation between economists and statisticians on the one hand and mathematicians on the other. We need greater cooperation between scientists engaged in philosophy and the natural sciences for solution of the philosophical problems of modern natural sciences. Linguists must increase their work in the field of applied linguistics, utilizing mathematical methods and computing machines.

• • •

The Soviet socialist system has opened up the broadest prospects for the science of our country. The measures envisaged by the decision of the Central Committee of the CPSU and the USSR Council of Ministers will enable our scientific institutions to make optimal use of personnel and resources for further successes in the country's technical progress, its further cultural development and our emergence to first place in the world of science.

I think I speak for all the scientists and scientific workers throughout the country when I say that we shall not spare our efforts, knowledge and abilities in the accomplishment of the new responsible tasks placed before us by the Communist Party and the Soviet Government.

Mark Twain's Unpublished Literary Heritage

By M. O. Mendelson

An authority on Mark Twain takes his literary executors to task for allowing a significant part of Twain's literary heritage to remain unpublished. *Izvestia Akademii Nauk SSSR, Otdeleniye Literatury i Yazyka (Bulletin of the USSR Academy of Sciences, Literature and Language Section)*, 1961, Vol. XX, No. 1.

THE WRITER has probably never lived who, if he was prolific and at all self-critical, did not leave behind him a number of manuscripts, some of them unfinished, some finished but never submitted for publication because they failed to satisfy him. Such works invariably come to light in the archives of major artists of the written word. In itself this is neither unusual nor surprising.

But the fate of a significant portion of Mark Twain's literary legacy is neither usual nor natural. He belongs to that group of writers who never lived to see in print many of their favorite brainchildren.

When Twain died half a century ago, his desk and safe were crammed with thousands of pages of unpublished manuscript. This is no exaggeration. In 1940 the American bourgeois critic Bernard DeVoto, then custodian of the Twain archives, stated that these unpublished or uncompleted works added up to some fifteen thousand pages.

Large as this figure may be, it still does not represent Twain's entire unpublished output. DeVoto in his preface to a collection of excerpts from Twain's *Autobiography*, published under the title *Mark Twain in Eruption*, writes: "For a period of years he wrote

obsessively — and was repeatedly frustrated. . . . It was a protracted agony. Manuscript after manuscript came to nothing. He returned to many of them, to some of them many times, . . . The efforts make an astonishing, a heartbreaking bulk, . . ."¹

But it seems that the period in the writer's life which DeVoto had in mind when he made his fifteen-thousand-page estimate refers in the main to the final years of the 19th century. In another DeVoto volume, *Mark Twain at Work*, we find certain remarks to confirm this statement. Speaking about the writer's uncompleted works the critic informs us that in the course of the two and a half years beginning with mid-1897 Twain worked with the greatest intensity and produced "a staggering number" of manuscripts.²

Actually the great satirist was working on projects he had been unable to complete in other periods as well, such as "Huck Finn and Tom Sawyer Among the Indians." Twenty-six galley sheets of this novel were set in type on a typesetting machine invented by James G. Paige—a machine financed by Twain—toward the end of the 1880s.³ To the extent to which this book remained unfinished we must therefore add to the estimated number of unpublished pages. There were a good many other similar projects on which Twain continued to work periodically.

Extremely important also is the fact that in addition to Twain's "abandoned" works, to use DeVoto's own terminology, there were also those which he completed in satisfactory manner, yet did not even attempt to publish. Examples of this are "Knights of Labor—The New Dynasty" and "Letter from the Recording Angel." Both of these works, completed in the 1880s, first saw the light of day after World War II. In 1940, when DeVoto first made his announcement about the "15,000 unpublished manuscript pages," they were still part of the unpublished archives. Neither of them, nor for that matter certain other completed but unpublished pieces, seem to have been taken into account when DeVoto was establishing his figures.

On the other hand we must remember that other works written at the turn of the century but not at once submitted for publication eventually were published at least in part during Twain's lifetime (this holds true for separate sections of the *Autobiography*) while certain manuscripts found in the archives are merely variations on other works.

Inasmuch as many of Twain's manuscripts remain unpublished to this day,⁴ it is still impossible to say with accuracy how many thousands of unpublished pages he did leave behind. But we may safely assume that DeVoto's figures are a guide to that portion of Twain's literary output which remained unpublished at his death.

Let us now see what those 15,000 manuscript pages actually represent. In *Mark Twain at Work* DeVoto tells us that Twain's manuscript pages contained on an average one hundred words or, to translate it into our terms, about five hundred printer's marks. We thus arrive at an estimated two hundred quires — enough for twelve to fourteen volumes of the size in which Twain's collected works were published in the United States in a twenty-five volume edition in the early 1900s. This, however, does not include the writer's voluminous unpublished correspondence.

Thus the mere size of the unpublished collection is startling. But even more important is the fact that the works which remained in manuscript in his lifetime were largely those in which he unequivocally and very sharply attacked the ruling circles of capitalist America.

Among these manuscripts, some of which are still under lock and key, there are of course certain weak, second-rate works not deserving the attention of the general reader. But there are also talented short stories, brilliant anti-imperialist articles, incisive pamphlets aimed at the military, the lynchers, the millionaires, the politicians; there are anti-religious writings, and so on.

The thought inevitably comes to mind that if works of this kind remained buried in the writer's files all those long years — and, we repeat, remain there still — it was for the simple reason that their publication didn't suit the interests of the powers-that-be. It must be made clear that Twain did not always forego publication as a result of direct rejection by his publishers. More often than not the writer himself came to the sad conclusion that what he had written could not possibly be printed and simply put away his "seditious" compositions deep in a drawer. But the point of the matter remains unchanged: Twain was denied a chance openly to speak his mind on the American way of life. One way or another, his creative output was censored. Nor was this censorship lifted fully even after his death.

We know from Twain's own testimony how painfully difficult it

was for him to speak the truth about his own country. In the preface to his *Autobiography*, for instance, he underscores the fact that here is a book not to be published in his lifetime, that he speaks as it were "from the grave" and "can speak thence freely."⁵ These remarks echo his famous bitter words: "Only the dead have freedom of speech. Only the dead may speak the truth. In America, as everywhere else, freedom of speech is the right of the dead."⁶ [Retranslated from the Russian — *Editor*.]

Having by the beginning of the 20th century taken a stand against imperialism, Twain wrote with biting sarcasm to his friend the Rev. Joseph Hopkins Twichell in a letter dated January 29, 1901: "I've written another article; you better hurry and help Livvy (the writer's wife — M.M.) squelch it."⁷ Sometimes at Livvy's insistence, sometimes on a publisher's demand, sometimes on his own initiative much of his work was truly "squelched" and never did reach those for whom it was meant.

The fact that the *Autobiography*, which contains some of the ideas dearest to his heart, was essentially meant for posthumous publication is significant in itself. Consider the following passage, found in a letter written in 1906 to his friend William Dean Howells: "Tomorrow I mean to dictate a chapter which will get my heirs and assigns burnt alive if they venture to print it this side of the year 2006 A.D. — which I judge they won't. There will be lots of such chapters if I live three or four years longer. The edition of 2006 A.D. will make a stir when it comes out."⁸

In his younger days Twain had relatively little occasion to write things he was unwilling or unable to submit for publication. But even then this happened occasionally. Thus during his stay in San Francisco in the mid-Sixties the thirty-year-old writer came up against the overt unwillingness on the part of the local papers to tell the truth regarding the darker side of life in the city and to publish his pieces on the heartless persecution of Chinese immigrants.

While preparing *The Innocents Abroad* (1869) for publication, Twain was forced to soften or even delete certain descriptions and opinions of a "blasphemous" nature. A little later, in the early Seventies, the influence of his devout wife made him decide not to publish an article in which the "Biblical God" was most unattractively portrayed. There were, we repeat, many other such

instances. By and large, however, whatever Twain wrote during that period did get published.

But does this mean that everything he published in the late Sixties and early Seventies remains available to American lovers of his art? Unfortunately the answer is no. We are not, by the way, referring to any youthful literary experiments, to immature and weak early works. We have in mind something else entirely.

During that period Mark Twain published in various newspapers and magazines a number of lampoons which artistically measure up in every way to his other works of that time but which to this day are nevertheless omitted from his *Collected Works* and other volumes published in the USA, so that for all practical purposes they are forgotten and unknown.

For instance, in 1871 the New York *Tribune* ran his satire, "The Revised Catechism." Here the writer poked fun both at the Holy Writ and at one of America's most powerful contemporary politicians, William Tweed. This corrupt grafter is portrayed as the prophet of the "true" God—that is, of gold, paper money and stocks and bonds. Tweed's henchmen, thieves like himself, are the apostles. "The Revised Catechism" was never reprinted until 1955, and then only in a specialized philosophical journal.⁹ Otherwise it is virtually unknown.

In the long-defunct magazine *Packard's Monthly* of March 1869 there appeared Twain's "Open Letter to Col. Vanderbilt." In this biting satire the prominent millionaire, who was being volubly lauded from the pulpit and in the press, is pictured as a man without honor or morals, ruthless, bringing all manner of misery to the people. Along with him the wealthy Astors come in for a drubbing.¹⁰ This bright satire too remains buried in the pages of an all-but-unavailable journal.

There are many other such indictments in Twain's writings of that period—pieces which appeared in the press or in pamphlet form but were never reprinted in book form during the author's lifetime or included posthumously in any American collection of his works.¹¹

Nine years after his death, in 1919, the New York publishers Boni and Liveright came out with *The Curious Republic of Gondour* containing his short stories and topical pieces covering the late Sixties and early Seventies and not included in any earlier

collections. It is curious that this book too contained neither "The Revised Catechism" nor "Open Letter." Yet the book's editors rescued from oblivion a whole series of other satirical pieces written initially for the magazine *Galaxy* and for the daily *Buffalo Express*. Among these were "Goldsmith's Friend Abroad Again," in which the sufferings of Chinese immigrants are dramatized with angry sarcasm, and "About Smells," which ridicules men of the cloth ready to grovel before the rich.

Some of the pieces in the Boni and Liveright collection — the Tweed and Vanderbilt lampoons included — are to this day omitted from all American editions of Twain's collected works.

"I never had such a fight over a book in my life before," Twain wrote to Howells early in the Eighties, while preparing for publication his recently-completed *Life on the Mississippi*. And indeed in connection with the acceptance of that book he experienced pressures from publishers such as he had never known.

Approximately two quires were deleted. These chapters and sections of chapters were first restored in a 1944 edition, but not, interestingly enough, by Harper and Brothers, the publishers of Twain's *Collected Works*. Instead, a house which specializes in fine illustrated editions of literary classics succeeded in receiving permission (from the private owners of the original manuscript, the Pierpont Morgan Library¹³) to publish the hitherto unknown portions of the book.

Not all this deleted and restored material may be called effective. Some of the humor is in questionable taste and here and there the writer's ideological delusions are apparent. But what is also apparent is Twain's growing tendency to expose and accuse.

Particularly did the author of *Life on the Mississippi* strive to rehabilitate in the eyes of his fellow countrymen those foreign critics of American reality whom the U.S. press always unanimously condemned. He also frankly admits the basis for these "malignant" judgments.

Some time in the late Seventies or early Eighties Twain seems to have begun a story about a tiny town called Tuppersville or Dobberville, a work he never finished.¹⁴ The sketches for it remain unpublished and must have served later for *The Adventures of Huckleberry Finn*.

The serious sharpening of social contradictions in the country

during the second half of the 1880s — a period of mass labor unrest, mass demands for the eight-hour day and strikes led by the Knights of Labor — is reflected with originality and distinction in "Letter from the Recording Angel" and "Knights of Labor — The New Dynasty," both of which we mentioned earlier.

The very existence of the "Letter" was for many years the carefully guarded secret of Twain's literary executors. It took nearly sixty years for this work to appear in print. In it Twain created one of the first and most impressive pictures in the history of the American short story of those big businessmen who not only constantly speculate and try to undermine their competitors but who in the most direct manner exploit their hired labor.

In some ways the "Letter from the Recording Angel" echoes the much earlier "Open Letter to Col. Vanderbilt," where the author sardonically called on the wholly unscrupulous rich man to perform just one decent act. "Go, boldly, bravely, nobly," writes Twain, "and give four dollars to some great public charity. This will break your heart, no doubt, but no matter, . . ."¹⁵ In the "Letter from the Recording Angel" he develops the same line. When the hero, the wealthy Langdon, sends his "impoverished cousin the widow . . . \$4 . . . you," notes the Angel, "were all the talk here [in Heaven] for days together." And when the widow's youngest child died, "you sent \$6, upon supplication, . . . and that act made perfect your good fame."¹⁶

On the whole the second work is more concrete in its comments on the behavior of American businessmen and industrialists. It makes short shrift of the Langdons' pretensions to spiritual superiority over the common people. In a moral sense Twain's hero clearly stands far below the average citizen.

Who then has the right to take over the country's affairs? Twain grapples with this question in "Knights of Labor — The New Dynasty," written around this same time and never published in full until 1957.

The story of the writing of this work is given elsewhere and need not be repeated.¹⁷ Suffice it to say that it was written as a speech and delivered in a narrow circle of Twain's friends at the Monday Evening Club early in 1886. Its full text did not appear in print until forty-five years later, when the scholarly publication *The New England Quarterly* ran it under the title "The New

Dynasty" (the present curator of the Twain manuscripts, Henry Nash Smith, supplied the longer, original title¹⁸) and its very existence was unknown to the general reader until Albert Bigelow Paine in his biography of Twain published in 1912 quoted the last few lines. It is apparently still almost unavailable.

"The New Dynasty" is a contradictory piece of work. The author distrusts the socialist ideal. His own political naiveté, the measure of his dependence on the opinions set forth in America's bourgeois press — which never missed a chance to run down the Paris Commune and the communists — are made clear from just a few sentences recalling his anti-communist attacks in *A Tramp Abroad* (1880). Twain declares that a victorious working class "will be our permanent shield and defence against the Socialist, the Communist, the Anarchist, the tramp, and the selfish agitator for 'reforms' that will beget bread and notoriety for him at cleaner men's expense; . . ."¹⁹

The writer still clings to his blindspots in regard to the true character of his country's social structure. He is convinced that nowhere is the working class so strong as in the United States, "the only soil in this world," to use his own words, "that is truly sacred to liberty," and that precisely in America can the "existing system of rights and laws" be most readily "reversed," "become an obsolete and vanished thing" "in an absolutely clear and clean and legal way. . . ."²⁰

The speech offers other proof of how limited was Twain's understanding of American bourgeois democracy and of the role played in his country by the working class. But the trailblazing significance of "Knights of Labor — The New Dynasty" lies in the fact that here we have a passionate dream about the victory of the working people over their antagonists, about their taking over power, becoming that "new dynasty" which must eventually displace the dynasties of kings and rich men.

Twain guesses that in the political circles which he knows "it is the prerogative of might to determine what is right."²¹ He sees the working people as the true nation. To him the speech made by the chairman of the trade unions in the name of "five millions of men" is an event unequalled in the country's history. He proclaims the right, even the duty of the working people, whom he considers the true source of all the good things in life, to establish

their power over the minority which oppresses them.

In "The New Dynasty" we see the Twain whom the reading public did not yet know. Again, it is not that he accepts communist or socialist principles — he even sharply attacks them — but the instinct of the democrat who with everything in him is drawn toward the common people helps him guess where the future lies.

From there on the development of Twain's world outlook as well as his growth as an artist continued contradictory and enormously complex. With a sick heart he watched the predatory actions of the major imperialist powers, his own country included. The inhumanity of colonial policy in Africa and Asia horrified him. At the same time he realized that the upsurge of jingoism in both America and Europe had in some measure touched even the common man. He understood that the reactionaries, the sabre-rattlers, thus often succeeded in bending the working people to their will.

Lacking a proletarian world outlook, he found it hard to gauge what was going on. The realistic, exhausting, infinitely laborious process of mobilizing the forces of the "new dynasty" was never clear to him. All these factors taken together help us understand why the Mark Twain of the 1890s hardly ever turned back to those speculations which found their expression in "Knights of Labor — The New Dynasty." Instead we hear in his output for that decade the ever more frequently and insistently recurring leitmotif of disillusionment with mankind.

Most of his unpublished works were written toward the end of the Nineties and in the first decade of the 20th century, or in the final thirteen or fourteen years of his life. This period coincides with America's assumption of a major role in imperialist expansion, with the Spanish-American War as the first war of that era. We must bear in mind that DeVoto called 1897 the beginning of the period when one after another Twain started dozens of works he was unable to finish, some of these apparently adding up to "many hundreds of pages." In August 1898 he wrote Howells: "Last summer I started 16 things wrong — 3 books and 13 mag. articles — and could only make 2 little wee things, 1,500 words altogether, . . ."²²

It would be impossible to understand Twain's inability during those years to finish so many of the things he started, nor what kept him from trying to publish what he did finish, nor yet the

sources of those outbursts of pessimism that color his later works, if we ignore the fairly obvious fact that all this was in one way or another predicated on the emergence of the United States as a world imperialist giant. Yet American bourgeois literary criticism is both unable and unwilling to countenance any such concept.

To explain the change which took place in Twain's world outlook and creative drive during his last years, transatlantic literary historians often fall back on facts—or perhaps even fancies—which have to do exclusively with his personal life: the death of his daughter, his bankruptcy, ill health, life-long hypochondria, even supposed psychopathic tendencies.

We find this attitude carried to an extreme in the work of one of America's outstanding contemporary critics, Henry Seidel Canby, who during the years of World War II put considerable effort into distorting the picture of the great poet Walt Whitman and who in the 1950s decided to make his "contribution" to Twainiana. Canby sees in the final two decades of Twain's work an expression of total degradation. He explains it all away as mental illness that supposedly got the best of the writer. This version of Twain's "illness" Canby categorically juxtaposes to the possibility, inadmissible to himself, that the creative output of the satirist's last years might have truthfully mirrored the dark phenomena of American reality under conditions of imperialism.

Thus Canby claims that in *The Mysterious Stranger*, one of the works written after the turn of the century, Twain was "as bitter as Swift, without the great Dean's evident reason for cynicism." "Something ailed Mark himself," and this "was more important than anything in current history. He had never been much concerned with current history," asserts the critic, completely discounting facts. He was "born neurotic," and "in the end neuroticism destroyed him as a creative artist."²³

Any suggestion to consider Twain's later output in the light of the phenomena of America's social reality is met by U.S. bourgeois literary historians with ill-concealed irritation. Harry Hayden Clark, whose article on Mark Twain is included in a critical-biographical reference work entitled *Eight American Authors*, refuses to Soviet researchers the right to interpret "Mark Twain's later pessimism" as a reflection of "the unsatisfying character of American civilization."²⁴ Joseph Wood Krutch, writing on Twain

in March 1960, says "his bitterness was directed not at the American system as such but at human nature, at the world and even at what he saw as an essentially meaningless universe."²⁵

It is of course impermissible to deny the presence of pessimistic elements in the writer's creative output, deny his tendency at times to blame all evils on man's "inner nature." But neither may we forget that Twain's misanthropically oriented works comprised a relatively small segment of his total output even for the final fifteen years of his life, and that under this pessimistic cover there was often sharp and pithy criticism of capitalism and imperialist reaction, an attitude essentially alien to misanthropy.

A detailed examination of the sources of Twain's pessimism does not lie within the scope of this article, and we take the liberty of referring the reader to previous writings where we do deal with them.²⁶ Here we wish only to make the following point: Although Twain's disillusionment with the bourgeois-democratic ideals he cherished since his youth reached its peak in the imperialist era, he never accepted the principles of socialism. Hence his tendency to see in the defeat of bourgeois democracy a sort of overall moral cataclysm, an end to all hope. He is forever trying to place the blame for the evil he sees around him not on the specific social conditions created in his country but on supposedly innate, ineradicable, evil traits given to man by nature.

Among Twain's many other writings which never reached the general reader during the author's lifetime are brilliant lampoons, articles and notes in which he rails against the militarists, the warmongers, the oppressors of the Negroes, against senators who buy their seats, against the arch-imperialist Theodore Roosevelt, against the hypocrite millionaires. Some of the titles are "The United States of Lyncherdom," "The War Prayer," "The Dervish and the Offensive Stranger," ("Mr. Rockefeller and His Sunday School,"), ("Senator Clark of Montana,"), ("Senator Guggenheim of Colorado").²⁷ We must also include the philosophical novella *The Mysterious Stranger* which to a large extent is an indictment of imperialism.

This last was published in the USA six years after Twain's death. Other works waited a great deal longer for publication. Some of them were used by Paine, the first custodian of the Twain manuscripts, in the 1923 volume *Europe and Elsewhere*, others in

the two-volume *Autobiography* published under his editorship in 1924. Still others appeared in 1940 with the publication of *Mark Twain in Eruption*.

The mountainous difficulties in the way of Twain's flaming indictments ever reaching the general reader are evident when we consider the fate of the *Autobiography* as a whole. DeVoto, appointed custodian of the manuscripts in 1939, writes that the two-volume edition prepared by his predecessor utilized "something less than half the typescript in which everything that Mark had wanted in his memoirs had been brought together." *Mark Twain in Eruption*, edited by DeVoto himself, includes, he tells us, "about half of the remainder."²⁸

In other words about one-quarter of the original text of the *Autobiography* — enough for a whole new substantial volume — remained unpublished as late as 1940. No further excerpts of any significant size appeared until 1959, when a new edition of the book appeared under the editorship of Charles Neider, who claims to have included in his text enough new material to add up to what in our terms is four to five quires, or author's sheets.²⁹ Simple arithmetic shows that at least ten more quires remain unpublished. What assurance is there that what has been printed represents the most valuable parts of this complex of Twain material?

True, the new portions chosen by Neider are of relatively little interest. But there is every reason to be skeptical of this editor's ability to choose the very best of the unpublished Twain. His thoroughly bourgeois social views are clear from the fact that he did not hesitate to delete from his edition of the *Autobiography* almost all of the writer's early anti-imperialist lampoons, his pieces lashing out against contemporary politicians and capitalists, and so forth.

Those of Twain's writings which were never published prior to 1910 permit us to evaluate more clearly than those published in his lifetime how the knowledge that the blood of innocent men was being spilled in all the corners of the earth and that new, more terrible wars were in the making was affecting the artist's morale. Thus in "The War Prayer" he describes with infinite bitterness what happens in a country when war breaks out — and it is perfectly clear he has in mind a war of aggression. In *The Mysterious Stranger* he tells how preparations are made for

attacks on other lands, how unjust wars are started and how "statesmen" succeed in getting plain people to believe in the "fairness" of unfair war.

Ordinarily, the writer tells us, "this rule will never change in so many as half a dozen instances. The loud little handful — as usual — will shout for the war. The pulpit will — warily and cautiously — object — at first; the great, big, dull bulk of the nation will rub its sleepy eyes and try to make out why there should be a war, and will say, earnestly and indignantly, 'It is unjust and dishonorable, and there is no necessity for it.' Then the handful will shout louder. A few fair men on the other side will argue and reason against the war with speech and pen, and at first will have a hearing and be applauded; but it will not last long; those others will shout them, and presently the anti-war audiences will thin out and lose popularity. . . . Next the statesmen will invent cheap lies, putting the blame upon the nation that is attacked, and every man will be glad of those conscious-soothing falsities, and will diligently study them, and refuse to examine any refutations of them; . . ."³⁰

It is not only in *The Mysterious Stranger* that Twain cries out in pain and fear against the people's passivity in the face of war threats, or how, yielding to the "loud little handful," they become capable of supporting wars of aggression. In "The United States of Lyncherdom" he calls on his countrymen to give battle to the lynch mobs, then adds with a glum smile, "Where shall these brave be found? . . . We are out of moral-courage material; we are in a condition of profound poverty."

American literary critics try to explain Twain's attitude toward his country's realities as based in "hatred of himself." The Anglo-American poet T. S. Eliot, a man whose reactionary views are a matter of record, not only stresses the subjective reasons for Twain's pessimism but even casts doubt on the writer's moral fiber. In his preface to *The Adventures of Huckleberry Finn* Eliot writes, "The pessimism which Mark Twain discharged in 'The Man That Corrupted Hadleyburg' and 'What Is Man?' springs less from his observations of society than from his hatred of himself for allowing society to tempt and corrupt him. . . ."³¹ This raises a question which we must pause to examine, if only because it may shed light

on the circumstances which prevented Mark Twain from submitting so many of his completed works for publication.

It is easy enough to quote statements made by Twain himself, self-critical and even self-destructive, to bolster Eliot's theory. Thus in 1907 Twain wrote that all men are cowards and "I am not only marching in that procession but carrying a banner."³²

There is no doubt he was tortured by a feeling of inadequacy for not consistently acting with courage, as a responsible citizen must in the struggle against social ills. And in fact he more than once yielded to the pressure of family and friends who urged him to caution. It was not easy for him to face the fact that some of his best work remained under lock and key. There are entries in Twain's journals which echo his despair: he reproaches himself because, in common with other artists, he does not write as he pleases.

But neither did he invariably make his peace with the taboos laid down by the major publishing houses. Well aware that his stubborn tendency to speak the truth would cut down on his "bread and butter," as he admitted in 1901 to his friend Rev. Twichell, he continued to yearn "to have my say."³³ Twichell's suggestion to be cautious and soft-pedal his views made him explode with indignation.

It required enormous moral courage to come out in print with pieces like "The Man That Corrupted Hadleyburg," "To the Person Sitting in Darkness," "King Leopold's Soliloquy." This courage Twain possessed. What if he did have reason not to be fully satisfied with himself and that this in some measure at times colored his writing. On the whole he nevertheless reflected first and foremost not his own personal tragedy but the corruption of capitalist society.

Those of Twain's works which only came to light during the past fifty years give us a substantially different image of him than even the most perceptive reader might have formed so long as there was no access to the full Twain archives. This is true even though, as has already been shown, so many significant writings remain unknown. We hear *about* them via the successive custodians — Paine, DeVoto, Wecter and Smith — and also from a few other literary scholars acquainted with his manuscripts, notably Kenneth R. Andrews and Philip S. Foner. Outstanding among

these works are the short story "Hellfire Hotchkiss," the articles on the war in South Africa, the story "The International Lightning Trust," a variation on *The Mysterious Stranger* called "The Mysterious Stranger in Hannibal," which describes Satan's arrival in the little town where Twain spent his childhood, the book *Letters from the Earth* and the article "The Stupendous Procession," satirical sketches about America's past and future, a collection of sketches called "Villagers of 1840-43" and a burlesque of the *Arabian Nights* written in 1883 of which, according to DeVoto, only the opening chapters remain in two typescript copies.³⁴

Very little is known about some of these. About others we have rather limited impressions on the basis of fragments quoted by the various critics mentioned. Insofar as we may judge on the basis of what is available in print, the three most interesting unpublished Twain works are those we shall now attempt to describe. "The Stupendous Procession" contains, it would seem, the fullest roster of the crimes of imperialism that Twain ever attempted. At the same time it is a witty, biting, imaginative work of art. Written in the traditional form of an allegory — similar to Shelley's satire *Mask of Anarchy* — it lampoons the world's major imperialist powers.

"The Stupendous Procession" was written at the very start of the 20th century. In Paine's biography of Twain it is characterized as "a gruesome pageant described in a document (unpublished) of twenty-two typewritten pages." Paine quotes no more than two dozen lines from it. These tell us that the procession is headed by a matron named Christendom who personifies the spirit of those Christian states which represent imperialist politics. "On her head a golden crown of thorns; impaled on its spines are the bleeding heads of patriots who died for their countries. . . ."³⁵ Here are Chinese who fought against European and American colonialists, here are Filipinos who resisted the Americans and Boers who resisted the British.

The progressive American historian Philip S. Foner finally obtained permission in 1958 to include in his book on Twain a number of additional excerpts from this piece. Even so we only know about a quarter of its text. The passages in Foner show that in presenting the imperialists of many countries Twain drew some broad generalizations. All aggressors — those "Christendom's favorite children" — are shown under the black flag of piracy. Eng-

land, France, Russia, Germany, Spain walk surrounded by men and objects symbolizing the predatory essence of their governments. Here are mutilated, chained figures labeled "Transvaal Republic," "Dreyfus," "Madagascar"; here too are soldiers carrying the heads of Chinese; tortured women and children who are doomed; here are gold and other stolen treasures in heaps.

Twain's own country figures prominently in the procession. The satirist put a great deal of pain and indignation into the figure dressed in Greek costume which walks bareheaded, weeping, its wrists manacled. The figure personifies the people of his land. Sorrowing and humiliated, it is being supported by two allegorical figures, Treason and Greed. The torch in the hand of the Statue of Liberty has been "extinguished and reversed."³⁶

With deepest irony Twain contrasts in his text the activity of American rulers and the noble language of the American Constitution, of its national anthem and the Declaration of Independence. Over the procession hovers the shade of Lincoln, his face full of anger and pain.

The text of "Villagers of 1840-43" is known chiefly through Dixon Wecter, who succeeded DeVoto in 1946 as curator of the Twain papers and who in 1952 published *Sam Clemens of Hannibal*. DeVoto called "Villagers of 1840-43" a "forty-page catalogue of Hannibal people."³⁷ But Wecter shows that this "catalogue" is in fact a fascinating piece of writing. It is unfortunate that Foner failed to pay sufficient attention to this outstanding work.

The excerpts available to us leave little doubt that the writer was trying with earnestness and exactness to understand the life of his town during the two decades preceding the Civil War. He strips from it the veil of idealization and bares its true character, showing at the same time that conditions at the turn of the century had become far less attractive than in the days of his childhood.

"Villagers of 1840-43" interests us first of all because of the psychological subtlety with which Twain portrays his intimates. His father, in the person of Judge Carpenter, is no longer handled with Twain's early implacable antagonism. In his own old age Samuel Clemens made an attempt better to understand John Marshall Clemens. Now the father is represented as "stern, unsmiling, [who] never demonstrated affection for wife or child..." But, the son adds, here was a man "of perfect probity and high principle..."³⁸

We understand that the father, a perennial failure, was shadowed by tragedy — out of his entire family he felt close only to his daughter.

As much as we are able to judge from the excerpts, "Villagers of 1840-43" also contains incisive sketches of other Hannibal figures, including slave owners and others of that ilk. These sketches are interesting not only in themselves but also as contrast to the way the inhabitants of the little Mississippi town are drawn in *The Adventures of Tom Sawyer*.

"Villagers of 1840-43" also shows the author's evaluations, direct and indirect, of capitalist America of the end of the century. Again and again Twain compares the mores and living conditions of the later period with those of Hannibal in the 1840s, underscoring how negative an influence on the moral tone of the country was its success in the realm of material production.

Mark Twain says flatly that in the days of his youth the rich were not worshipped,³⁹ yet such worship became the rule later on. No matter how naive the population of Hannibal of the mid-19th century may have been with their sentimentality and lush romanticism, the mores of that time, "when one examines it and compares it with the ideals of today, it was the preferable thing. It was soft, sappy, melancholy; but money had no place in it."⁴⁰

Twain returns to this idea again and again. Seeing bourgeois contemporary reality as stripped of ethics and human dignity, he questions the value of material progress as attained in the USA. He tries to understand the origin of the infection that transformed the America he loved into so different and unattractive a land. So we come upon the following provocative remark: "The California rush for wealth in '49 introduced the change and begot the lust for money which is the rule of life today, and the hardness and cynicism which is the spirit of today."⁴¹

No matter how naive may be Twain's theory that the development of U.S. capitalism stems from a single phenomenon in the country's life, the above-quoted passage testifies to his extraordinary clear-sightedness. Even with only about one-twentieth of the text of "Villagers of 1840-43" in print, it is safe to say that the portions remaining hidden from the general reader promise to be a veritable treasure house.

In his introduction to *Mark Twain in Eruption* DeVoto mentions

"two apocalyptic treatises on history" which the satirist began in the first decade of the 20th century and, again, left unfinished. The basic theme of both DeVoto paraphrases as follows: "The Republic is born, flourishes, decays into plutocracy, and is captured by the shoemaker whom the mercenaries and millionaires make into a king."⁴³

In Andrews' book we have the following passage: "The future that Twain saw for a commercialized America was dictatorship by the financiers, followed by complete collapse of the rotten republic."⁴³ Foner quotes similar conclusions expressed by the writer in another unpublished work, written in 1906 or 1907. At that time Twain had completed two chapters for a projected work which he called variously "Glances at History" and "Outlines of History."⁴⁴ According to available data this work seems to have been dedicated not to past United States history but was rather a prophecy about its future.

While Jack London, who at just about that time had written *The Iron Heel*, in looking at the contemporary picture and pondering the future, was able to speak of the inevitability of a prolonged struggle and still predict the eventual victory of an embattled people, Mark Twain, for all that he agreed with London's evaluations, sadly predicted only the consolidation of America's arch-imperialist order. More than once he speaks of the dictatorship of the millionaires that is being established. In his "historical" works he carries this idea to a logical conclusion, showing as it were that nothing remains of the old republic, that the country is becoming a kingdom. And monarchy is for the author the symbol of darkest reaction.

Some of the fragments quoted by Foner show the American people being drawn into a war of conquest. This is also true of "The War Prayer," *The Mysterious Stranger*, and many other pieces published in Twain's lifetime in which he shows how the militarists, after confusing the people with pseudo-patriotic cant, force them to buckle under.

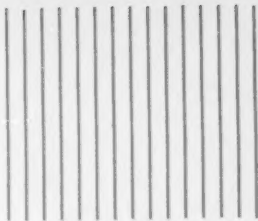
Twain also writes of the revolutionary struggle of the workers against those who oppress them. But here follows the tragedy of how the people in revolt are fooled. Unsuspecting and simple, they go along with the lying speeches of the golden-voiced shoemaker, believing he is their friend and enemy of the rich. But the shoe-

FIRST CLASS
PERMIT NO. 15407
NEW YORK, N. Y.

BUSINESS REPLY MAIL

POSTAGE WILL BE PAID BY —

**International Arts and Sciences Press
156 Fifth Avenue
New York 10, N. Y.**



THE SOVIET REVIEW • 156 FIFTH AVENUE • NEW YORK 10, N. Y.

Please enter my subscription to **THE SOVIET REVIEW**, a monthly journal of translations, for

- | | |
|---|---|
| <input type="checkbox"/> Two years at \$10.50 | <input type="checkbox"/> Renewal |
| <input type="checkbox"/> One year at \$ 6.00 | <input type="checkbox"/> New Subscription |

Name.....
Street.....
City.....Zone.....State.....

Please send **THE SOVIET REVIEW** for one year as my gift to:

Name.....
Street.....
City.....Zone.....State.....

- ☐ Payment enclosed ☐ Please bill me for the above order(s)
Add \$1.00 a year for Canadian and foreign postage.

maker, secretly in league with the plutocrats, seizes power, establishes a monarchy and puts an end to the American republic.

Looking through the eyes of a future chronicler, this is how the writer characterizes the reality of his times: "Lust of conquest," he writes, "had done its work . . . trampling upon the helpless abroad had taught her [the Republic], by a natural process, to endure with apathy the like at home; multitudes who had applauded the crushing of other peoples' liberties, lived to suffer for their mistake in their own persons. The government was irrevocably in the hands of the prodigiously rich and their hangers-on, the suffrage had become a mere machine, which they used as they chose. There was no principle but commercialism, no patriotism but of the pocket."⁴⁵

Clearly it was in Twain's late writings — the unpublished ones first and foremost — that the writer's dissatisfaction with capitalist reality reached its angry peak. In these remarkable works there are very few traces left of bourgeois illusions. In his protest against imperialism this national writer has gone much further than most other "anti-imperialists" of his time — the last Mohican of bourgeois democracy.

1. *Mark Twain in Eruption*, ed. Bernard DeVoto (New York: Harper and Brothers, 1940), p. xx.
2. Bernard DeVoto, *Mark Twain at Work* (Cambridge, Massachusetts: Harvard University Press, 1942), p. 112.
3. *Ibid.*, p. 48.
4. E. Hudson Long, *Mark Twain Handbook* (New York: Hendricks House, 1957), p. 269. Here the information is given that only one repository of Twain's manuscripts contains vast quantities of still unpublished material.
5. *The Autobiography of Mark Twain*, ed. Charles Neider (New York: Harper and Brothers, 1959), p. 28.
6. Mark Twain, *Selected Works*, Goslitizdat (State Literary Publishing House, USSR) 1953, Vol. II, p. 566.
7. *Mark Twain's Letters* (New York: Harper and Brothers, 1917), Vol. II, p. 706.
8. *Mark Twain-Howells Letters*, eds. Henry Nash Smith and William M. Gibson (Cambridge, Massachusetts: Harvard University Press, 1960), Vol. II, p. 811.
9. In Arthur L. Vogelback, "Mark Twain and the Tammany Ring," *Publications of the Modern Language Association*, March, 1955, pp. 69-77.
10. *Packard's Monthly*, March, 1869, pp. 89-91.
11. All of Mark Twain's completed works mentioned in this article, which were ever published anywhere in the USA but are not included in any

- of the collections subsequently printed there, have been included in a 12-volume edition of his works published by the State Literary Publishing House of the USSR. Reference here is to the following stories and articles: "The Revised Catechism," "Open Letter to Col. Vanderbilt," "Knights of Labor - The New Dynasty," "Letter from the Recording Angel," "A Defense of General Funston," "The Czar's Soliloquy," and "King Leopold's Soliloquy: A Defense of His Congo Rule."
12. Benjamin Lease, "Mark Twain and the Publication of *Life on the Mississippi*: An Unpublished Letter," *American Literature*, May, 1954, p. 248.
 13. Mark Twain, *Life on the Mississippi* (New York: The Heritage Press, 1944), p. 385.
 14. Walter Blair, "When Was *Huckleberry Finn* Written?" *American Literature*, March, 1958, p. 22.
 15. *Packard's Monthly*, *op. cit.*, p. 90.
 16. In Philip S. Foner, *Mark Twain, Social Critic* (New York: International Publishers, 1958), p. 140.
 17. M. Mendelson, "Mark Twain's 'New Dynasty,'" *Voprosy Literatury*, 1959, No. 7.
 18. *Mark Twain-Howells Letters*, Vol. II, p. 597.
 19. In Paul J. Carter, Jr., "Mark Twain and the American Labor Movement," *The New England Quarterly*, September, 1957, p. 387.
 20. *Ibid.*, p. 384-85.
 21. *Ibid.*
 22. DeVoto, *op. cit.*, p. 111.
 23. Henry Seidel Canby, "Mark Twain," in *Mark Twain, Selected Criticism*, ed. Arthur Lincoln Scott (Dallas: Southern Methodist University Press, 1955), p. 281-82.
 24. Harry Hayden Clark, "Mark Twain," in *Eight American Authors, A Review of Research and Criticism*, ed. Floyd Stovall (New York: Modern Language Association, 1956), p. 362.
 25. Joseph Wood Krutch, "The Kremlin Claims Mark Twain," *The New York Times Magazine*, March 6, 1960, pp. 18, 68-69.
 26. M. Mendelson, "Mark Twain," *The Young Guard*, 1958, pp. 337-43 ff.; Mark Twain, *Collected Works*, Goslitizdat, 1959, Vol. I, pp. 44-46, 48-50, 53; M. Mendelson, "Mark Twain," *Znanie*, 1960, pp. 36-37, 40-41.
 27. The titles given in parentheses are not Twain's own.
 28. *Mark Twain in Eruption*, p. vii.
 29. *The Autobiography of Mark Twain*, p. xi.
 30. In Mark Twain, *Europe and Elsewhere* (New York: Harper and Brothers, 1923), p. 246.
 31. *The Art, Humor and Humanity of Mark Twain*, eds. Minnie M. Brashear and Robert M. Rodney (Norman: University of Oklahoma Press, 1958), p. 254.
 32. *Mark Twain in Eruption*, p. xxix.
 33. *Mark Twain's Letters*, Vol. II, p. 705.
 34. DeVoto, *op. cit.*, pp. 59-60.
 35. Albert Bigelow Paine, *Mark Twain, A Biography* (New York: Harper and Brothers, 1912), Vol. III, p. 1,149.
 36. Foner, *op. cit.*, pp. 285-88.
 37. DeVoto, *op. cit.*, p. 114.
 38. Dixon Wecter, *Sam Clemens of Hannibal* (Boston: Houghton Mifflin Company, 1952), p. 67.

39. *Ibid.*, p. 219.
40. *Ibid.*, p. 178.
41. *Ibid.*, p. 219.
42. *Mark Twain in Eruption*, p. xxvii.
43. Kenneth R. Andrews, *Nook Farm, Mark Twain's Hartford Circle* (Cambridge, Massachusetts: Harvard University Press, 1950), p. 238.
44. Foner, *op. cit.*, p. 305.
45. *Ibid.*, p. 306.

Persuasion and Compulsion in Combatting Anti-Social Acts

By N. Mironov

An attempt is being made in the USSR to combine two approaches toward crime: persuasion and compulsion. Non-governmental bodies such as public-order squads and comrades' courts try to prevent anti-social acts before they occur and to exert social pressure in the early stages of a lawbreaker's career. This type of collective pressure is gradually narrowing the sphere of application of compulsion. The author adds that mistaken leniency should not be permitted in the case of serious crimes. *Kommunist*, 1961, No. 3.

MOST SOVIET PEOPLE are public-spirited and conscientious in their attitude toward work and toward socialist property. Comradely mutual assistance based in a community of interests and a common objective, a spirit of collectivism, mutual respect, an uncompromising attitude toward violations of the standards of conduct in socialist society are more and more widespread. The citizen of the future communist society—a cultured, educated human being with advanced ideas, free of the psychology of the bourgeois world—is beginning to emerge.

But vestiges of the old system of exploitation still survive in the minds of some of our people, and these make themselves felt in the behavior of certain individuals through actions hostile to socialist society. One of the holdovers from the past is crime. There are still instances of embezzlement, theft, hooliganism and other crimes which violate the rights and personal security of other citizens.

It goes without saying that the causes of crime and other anti-social acts in our country are not the same as in the capitalist world. There crime is a normal and ineradicable social misfortune, rooted in the very nature of the system itself with its poverty, unemployment and doubtful bourgeois morals. The socialist sys-

tem, on the other hand, has destroyed the root causes, the permanently operating causes of crime inherent in capitalism. It has created all the prerequisites for its sharp reduction. But socialism has not developed in a vacuum. It still retains traces of the old world. It would therefore be a delusion to believe that crime and other anti-social acts would disappear immediately and of themselves. A long and stubborn struggle is needed to cleanse society of the accumulation of hundreds and thousands of years of decay. For one thing, our people are not isolated from the influence of hostile bourgeois ideology, the propaganda which attempts to revive the private property drive and other customs and habits now alien to us. Nor can we forget the bitter aftermath of the last war. The war itself, which scattered many families and left large numbers of children without parents or proper homes, had a disastrous effect on many people. Later on there were the difficulties of the post-war period of economic recovery.

Yet experience shows that a substantial proportion of the crimes in our society are committed by persons who evade socially useful work and lead a parasitic life. In some regions and republics this group accounts for nearly one-third of all crimes. Drunkenness is another source of crime—especially of the dangerous kind. Not enough is being done to eliminate the factors contributing to law-breaking. Parasites, drunks and hoodlums do not always face public condemnation. Administrative bodies are not always sufficiently strict.

The Communist Party and the Soviet Government attach exceptional importance to educating the masses to a communist attitude toward work and observance of the socialist rules of behavior. In January of this year the Plenary Meeting of the Central Committee of the CPSU strongly condemned such ugly phenomena in our life as parasitism, a negligent attitude toward work and reception of the state. To quote Comrade Khrushchev, "an uncompromising struggle is necessary and . . . public influence must be combined with strict administrative punishment. But the main thing is to educate the people."

Party, trade union and public organizations are paying a great deal of attention to combatting infringements of the law. Anti-social acts, no matter what their nature, become increasingly intolerable in a society where every possibility exists for eradicating

crime. Success in this area depends above all on utilizing the powerful forces of the public, on efficient work by the militia, the courts and the procurator's office and on ever closer coordination between state bodies and public organizations. The problem arises of how to use persuasion and compulsion together, how to combine measures of a public and educational character with coercive measures.

As we have said, the Soviet State differs in principle from states that existed or now exist in societies composed of antagonistic classes. Violence, compulsion and suppression—political, economic, spiritual and physical—are characteristic of the attitude of the bourgeois state toward the working people. In socialist society the situation is different. Here the state is an instrument in the hands of the people. It defends and protects their interests. The very strength of the Soviet State lies in the political and social awareness of its citizens. Its main method of governing is through persuasion, by educating and organizing. Lenin stressed that point time and again. "First of all, and at all costs, we must persuade, and only then compel."

As socialist society develops, our citizens are more and more drawn into the management of public affairs. A number of functions previously performed by state bodies belong to public organizations. A gradual withering away of state administrative bodies—bodies that carry out functions of compulsion—is now taking place. The public is called upon to play an increasingly important role in safeguarding the rules of the socialist community and to forestall acts detrimental to society.

The Party policy of increasing the role of the public in combating crime and other violations of socialist standards of conduct is an embodiment of Lenin's idea of organizing a mass campaign among the people to fight against survivals of capitalism. In *How to Organize Competition* Lenin wrote: "The voluntary, conscientious cooperation of the masses of workers and peasants in controlling with revolutionary enthusiasm . . . the rogues, the idlers and the hooligans alone can conquer these survivals of an accursed society. . . ."

It is significant that from the very beginning the fight against crime became a matter which the Soviet people undertook themselves. They formed societies and brigades to help the militia,

public-order commissions, youth squads, factory and rural comrades' courts and other voluntary organizations. Today the public is utilizing the experience of those years to work out new forms of combatting lawbreakers. There now exist voluntary public-order squads whose organization received its impetus from a decision of the Central Committee of the CPSU and the Council of Ministers of the USSR, *On the Participation of the Working People in the Maintenance of Public Order*, adopted in March 1959.

The strength of the public-order squads lies in the voluntary, mass-scale participation and active support of the entire population. For example, the workers, engineers, technicians and office employees of big factories and construction projects in Leningrad are doing an efficient job of ensuring public order. At the Bolshevik Factory the public-order squad is a close-knit group made up of members of communist work teams,* or leading production workers, including many Party and YCL members. Squads make it their aim to assure exemplary order in places of public recreation and entertainment. As a result there are hardly any serious infringements of public order in the Central Recreation Park, the Victory Seaside Park or at the city stadiums. Their fine work has made it possible to reduce the militia [police] posts at motion picture houses and recreation centers and even do away with some of those posts.

The squads are constantly extending their sphere of activity and improving their methods. They now combat drunkenness, illicit distilling of vodka and profiteering. They expose persons who lead a parasitic life and try to eradicate instances of child neglect.

At an all-Ukrainian conference an interesting account of work in this field was given by the director of the secondary school in the village of Kirillovka, Rovno Region, who is also commander of the local public-order squad. This, he said, is made up of prominent collective farmers, Communist Party and YCL members and other persons active in rural community affairs. The entire population of the village knows about the work of the squad and responds with respect and confidence. As a result it has been possible to reduce the number of collective farm watchmen by two-thirds without incurring any losses. Squad members have even

*Groups of workers who agree to live and work according to communist principles. — Ed.

persuaded many villagers to turn in their stills and stop the illegal processing of liquor.

In re-educating lawbreakers public-order squads make wide use of satirical newspapers, leaflets and photograph displays. These, incidentally, are often more effective than administrative measures. Violators beg headquarters not to post their photographs in public.

Not only drunks and hoodlums but hardened criminals are beginning to realize the significance of the voluntary public-order squads. Criminals break laws when they feel they can get away with it but not when they meet organized public rebuff. A hardened recidivist thief, after serving his latest sentence, recently wrote: "The days of our brethren are numbered. The public-order squads are catching us red-handed. Nearly every citizen helps. They make sketches of us and post them for everyone to see. Something unbelievable is going on..."

It is only right that a person who violates the laws and acts to the detriment of society as a whole should be punished. But must criminal punishment be the rule in all cases? By no means. If the infringement is insignificant and does not endanger society, if the offender realizes the harm in his actions and is anxious to atone, if finally the organs of justice are confident that the culprit can reform and that this may be attained without resorting to criminal punishment—that is, by releasing him, placing him in the care of the collective with which he works or studies, and that the collective will be able to influence him—criminal punishment is not indicated. Once the public becomes involved in the fight against lawbreaking, it is possible to bring such persons to light not only *post factum* but beforehand—possibly to prevent crimes by focusing ahead of time on conduct deviating from standards of social behavior.

Prevention of anti-social acts and re-education are effected by both state institutions and public organizations. Discussion of a person's misdemeanor by the group with which he works is a particularly effective form of re-education. Only a hardened criminal, one without either honor or conscience, is capable of deceiving the collective, ignoring the confidence placed in him. As a rule the understandable indignation of fellow-workers, their blunt appraisal of what he has done, and finally the trust they place in him when they decide to vouch for his future conduct, all make a deep im-

pression on the miscreant's mind and compel him to give serious thought to his actions. Thus S., a worker in a building organization in Chita, was exposed to the sharp but honest criticism of his co-workers when they met to discuss his theft of some glass. "I am a working man," one of the loaders told him in public, "just like yourself. But the old psychology of rowdiness and thievery still has a grip on you. You make as much money as the rest of us. You have enough to eat and to wear. Wrongdoers like you are few nowadays and we'll be able to handle them ourselves without the procurator's office or the court. But I feel sorry for you if you dare disgrace our working-class honor again." S. took these words deeply to heart. He promised the meeting to make up for what he had done by honest work. The collective then vouched for him, and subsequently he reformed.

Comrades' courts set up at factories, offices, collective and state farms enjoy increasing prestige. Their strength, like that of other public groups, lies in condemnation of misdemeanors in front of the collective. These courts cannot of course hand down a sentence depriving someone of liberty. But an offender in facing it feels he is facing the public conscience. Small wonder that many ask that their cases not be taken up by comrades' courts — they are ashamed to face the judgment of their comrades.

During the past two years collectives of workers, public-order squads and comrades' courts have reformed and returned to useful activity many people who had gone astray, then sincerely repented. In Moscow there are several hundred such persons now being reformed in the collectives at their places of work. Most of them are justifying the trust placed in them. Of the total number of offenders for whom collectives vouched in 1960 less than one per cent repeated offenses.

Sometimes someone may be unable to break completely with his past, so that time and effort must be put into his re-education. But time spent in "fussing" over such persons is not wasted. The important point is to help them return to an honest life. Soviet society is not indifferent to the fate of those who have slipped. Whenever it is possible to change them without depriving them of liberty that of course is the road to be followed.

The courts, procurator's office and militia are active in preventing infractions of the law and in educating citizens to obey the

laws of the land. Important factors in this work are the trying of cases directly at factories, offices and collective farms, extensive explanation of the laws to the people and participation by officials of the courts, procurator's offices and the militia in discussions of misdemeanors at meetings of factory workers and collective farmers.

But there are examples where work in this area is not effective. In the town of Zhdanov in the Stalino Region the Party organizations did not succeed in really drawing the public into the campaign against crime. The public-order squads and comrades' courts did not get the necessary assistance and are not functioning properly. The City Party Committee does not make a thorough enough investigation of the work of the militia, the courts and the procurator's office, nor does it supervise their work properly. It is not surprising therefore that instead of decreasing, the number of breaches of the law there is on the rise and order is not being maintained in public places.

The fact that persuasion is recognized as the chief method of guiding the masses and the policy followed of drawing the public into the fight against violations of the law does not of course exclude the use of compulsion. Strict observance of laws established in the interests of the whole of society requires more than cultural, educational and organizational work on the part of state bodies and public organizations. It also requires a firm hand by the state authorities in ensuring observance and punishing those who do not wish to observe the law voluntarily.

While assigning to organizational and political work the main role in establishing the new discipline, Lenin characterized as ridiculous utopians persons who hoped to solve the problem by persuasion alone. In the original draft of his *Current Tasks of the Soviet Power* he wrote: "It is absolutely impossible to solve the problem without compulsion. We need a state and we also need compulsion. The body of the proletarian state exercising such compulsion should be the Soviet courts. The tremendous task of inculcating labor discipline in the population falls on them."

Lenin's instructions fully retain their validity. Naturally as the socialist system develops the nature of compulsion changes, just as some of the functions of the state wither away altogether. But the Party and the state have always proceeded from the prem-

ise — confirmed by experience — that compulsion is necessary, along with persuasion and education, in the case of those who violate Soviet law.

In order correctly to evaluate the role of compulsion in socialist society, and particularly the role of its severest form, punishment meted out by a court of law, we must bear in mind that this is resorted to only when all other methods have failed or when violation is particularly dangerous to society and its citizens. At the same time compulsion, even in the form of criminal punishment, aims not only at forcing the wrongdoer to observe the law but also at educating him, persuading him by the very act of punishment that it is necessary for laws to be observed. Significantly one of the articles of the Fundamentals of Criminal Legislation of the USSR and the Union Republics declares: "Punishment is not only retribution for a crime; it also pursues the aim of reforming and re-educating the sentenced persons in the spirit of a conscientious attitude toward work, strict observance of the laws, respect for the rules of socialist intercourse, and also the prevention of further crimes either by the sentenced persons or other persons."

In socialist society compulsion therefore remains an important means of eradicating crime. Later on of course every citizen will observe the laws voluntarily, out of deep inner conviction and awareness of moral duty, by force of habit. But until they do, the state must uphold law and order by applying compulsion. It now becomes a matter not of rejecting compulsion but of gradually narrowing the sphere of its application, spearheading punitive measures against imperialist agents, confirmed criminals, dangerous recidivists and others who do not lend themselves to re-education.

Many serious shortcomings exist in the work of the militia, the courts and the procurator's offices. For years they failed to apply measures of public influence to a sufficient degree, their policy being chiefly to resort to measures of criminal punishment or deprivation of liberty. This they did even in cases of minor infractions, when the guilty persons might readily have reformed without isolation from society. Suspended sentences, even for minor offenses, were for a time regarded as "liberalism." Yet in the early days suspended sentences as well as punishment not involving deprivation of liberty were applied rather generally.

Steps to remedy these shortcomings were taken at the initiative

of the Central Committee. The Supreme Court of the USSR meeting in plenary session and an enlarged meeting of the Collegium of the Procurator's Office of the USSR discussed the work of the courts, adopting in June 1959 a decision which pointed out that while the courts should mete out strict punishment to those guilty of serious crimes and to dangerous recidivists, they should have more frequent recourse to punishment not involving deprivation of liberty and, where the breaches were minor, to suspended sentences and rehabilitation through public influence.

Unfortunately some officials took this to mean a relaxation of compulsion by the state or rejection of compulsion even where it was indicated by the interests of society. They now assume that once the public has actively joined in the fight against lawbreaking it is fully prepared to take over the functions of the state organs. Instead of combining the work of the courts with that of public organizations, in some areas the authorities place all their hopes in the public-order squads and comrades' courts. While they have eliminated the practice of handing down unnecessarily strict sentences for minor offenses, such officials undermine the fight against dangerous criminals by limiting themselves to public influence or, at most, to mild forms of punishment. For example the People's Court of Urgutsk District in the Samarkand Region gave a suspended sentence to a man who systematically engaged in speculation. Although the scope of this parasite's "activity" was such that he pocketed a profit of more than 60,000 rubles from a single speculative deal, the district procurator merely asked the court to pass a suspended sentence.

Court judgments of this kind only serve to undermine the prestige of the whole apparatus and call forth legitimate indignation on the part of the public. Also, there are crimes whose very nature precludes clemency. Humaneness should be shown first of all toward the person to whom the criminal has caused damage or suffering—and toward society. The criminal should be made acutely aware of the power of the Soviet State; he should be punished with the full severity of the law, the most effective measure against hardened criminals being their isolation from society.

Mistakes are also sometimes made when lawbreakers are turned over to the public for re-education. To leave a wrongdoer at liberty, entrusting him to a collective, is a serious and responsible step.

It should be taken only when there is full conviction that he is capable of being reformed through honest work. Sometimes, however, officials make only a superficial study of the offender's character and are too easily swayed by testimonials and requests. The result may be that persons whose present actions and past history indicate that strict measures are in order are turned over to collectives for re-education.

What such mistakes may lead to is seen from the following example. On a number of occasions the Baku militia detained a certain Rashid S. for disorderly conduct and hooliganism. On one occasion he was caught carrying a dagger. He was booked for trial but at the request of tenants in the house where he lived his case was annulled. One month later he was caught stealing. Here was a criminal who did not deserve leniency, and the People's Court of the district correctly refused the request of the staff of the place of Rashid's work that he be left at liberty since they vouched for him. The People's Court sentenced him to a year and a half of deprivation of liberty. However, the Supreme Court of the Azerbaijan Republic rescinded the sentence, granting the collective's request. Several days later Rashid committed a premeditated murder. It is obvious that this could have been avoided had the court, the investigating bodies and the public been willing to admit that he was a menace to society.

A lenient, "kindly" attitude toward criminal offenders is sometimes taken by heads of collectives under pressure from individuals who through a false concept of comradeship try to save a fellow-worker. This implies an incorrect understanding of the role of the public in combatting crime. People cannot be saved "at all costs." Public prestige must be carefully guarded. Dishonest persons must not be allowed to meddle in the good fight against crime. Shady characters who take advantage of the negligence of certain administrative officials and public organizations must be sharply rebuffed and not permitted, sometimes through bribery, to effect the release of wrongdoers who can never be rehabilitated.

An important factor in eradicating crime is the certainty that the measures applied to the lawbreaker achieve their ultimate — his reform and re-education. The Soviet method of re-educating such persons at corrective labor institutions has stood the test of time. Under our law punishment is not vengeance. The overwhelm-

ing majority of the detainees are persons who at the time they committed their crimes worked in factories, offices, on state or collective farms, and who after serving their sentences will return to a work collective. This determines the activity of the corrective institutions, their main methods of influencing the inmates: the methods are socially-useful work, the detention regimen and political education.

The Soviet system of reform and re-education has clear-cut advantages over bourgeois prison systems. One of these is the parole system which provides the inmates with incentive to reform. Practice has proved this measure highly effective. Thus out of a large number of persons paroled at the beginning of 1960 only four per cent have failed to justify the trust placed in them and had to be isolated again. This four per cent represents chiefly persons paroled without sufficient investigation. The overwhelming majority of the parolees resumed a life of honest work.

Even bourgeois jurists admit the positive features of Soviet corrective labor institutions. Of interest in this respect is an article published in 1959 in *Life* magazine by Samuel Leibowitz, a Justice of the Criminal Court of the State of New York, after a visit to the Soviet Union. After some abuse of our laws and the work of our courts, the article admits that our progress in the field of corrective labor is so significant, American methods seem archaic by comparison. After giving a high appraisal of the re-education of our prisoners through work it speaks of the people released from American prisons as broken and wretched men. With few exceptions American prisons do not teach their inmates useful trades. Nor are the prisoners ever forgiven their sins: even after serving his term a man cannot make a complete break with his past, Leibowitz declares.

The positive aspects of our corrective labor system do not of course preclude the possibility of further improvement. Many shortcomings still exist. In some colonies productive work is poorly utilized as an educative factor and no effective steps are taken in regard to inmates who refuse to work. Not always are compulsion measures used where necessary: sometimes confirmed troublemakers are allowed liberal use of recreational and cultural facilities; distinctions in the quality and quantity of work and food are not always made; the heads of colonies sometimes make things

too easy for the inmates, closing their eyes to violations of the regimen and permitting more correspondence and visits with relatives than is established by the rules.

There are still colonies where dangerous criminals and recidivists are placed together with first offenders. Hardened criminals, particularly if they have no wish to reform, may have an adverse influence on inexperienced and unstable persons who, after they have been released then commit new, more dangerous crimes.

The Ministry of Internal Affairs, which is responsible for the work of the corrective labor colonies, must take steps to improve the re-education of inmates and other weaknesses mentioned. Observation commissions set up by the local Soviets of Working People's Deputies and also the public organizations and staffs of nearby enterprises could and should play a part in educational work among inmates.

Socialist laws must be strictly observed in the fight against infringements of public order. In trying criminals, including dangerous ones, our courts must always take into account not only the circumstances aggravating guilt but also those mitigating it, study the motives and make the punishment fit the crime. But the present process of narrowing the sphere of compulsion and extending that of public influence must not lead to allowing criminals to escape responsibility for what they have done. There must be no going to extremes in such matters. It is important correctly to combine measures of public influence and measures of criminal punishment, starting from examination of the nature of the crime, the character of the criminal and the degree to which he is a menace to society. Soviet people are humane and can forgive those who commit minor infractions of the law. But we must not show leniency or liberalism toward those who deliberately break laws, who commit dangerous crimes, who deceive the collective and scorn public opinion. The criminal who encroaches on the security of society and of the Soviet citizen must not be allowed to escape punishment.

There is little doubt that by combining the efforts of state bodies and public organizations we will succeed in sharply reducing, then completely eradicating crime in our country. Party organs must give constant attention to organizing the fight against violations of law and order. They must look upon this as an important task in the building of communist society.

Competition at the Kindergarten Level

By Y. G. Baturina

An educator describes the harmful effect of competition on pre-school children and asks teachers to call a halt to this practice. *Doshkolnoye Vospitaniye* (Pre-School Education), 1961, No. 3.

THERE WAS a time when policy-making agencies condemned the utilization of socialist competition among school personnel. Today competition is practiced on a large scale by workers at the school and kindergarten levels in organizational matters, as for instance the construction of kindergarten buildings in town and on the collective farm, their expansion, preparations for each new school year (building maintenance, procurement of fuel, acquisition of furniture, clothing and utensils), equipment of sites, improvement of food services, etc. There is competition among the kindergartens of a given region, district or town, and the directors, teachers and service personnel undertake socialist obligations.

Certainly we can only welcome the fact that pre-school personnel work with the same labor enthusiasm as the Soviet people as a whole. Nevertheless this important phenomenon sometimes takes on undesirable forms which have a negative effect on the upbringing of children.

Challenge banners and certificates of honor are awarded to kindergarten personnel as a consequence of competition. These emblems of distinction are hung in lobbies, in directors' offices and even in the kindergarten rooms. This should not be done.

Every object in his group's room is of interest to the child. Children are observant and the appearance of anything new in the room immediately attracts their attention, prompting a flood of questions. And no matter what the answer given, they can only draw one conclusion: our group is best; our teachers and nurses are the best of all. The children feel proud of the adults. But then

what will they feel in regard to the rest of the personnel of the kindergarten? Only that they must do their jobs badly. How can this be reconciled with instilling respect for adults? And what will the children in the other groups think of *their* teachers, who have not been awarded pennants or certificates? I hardly believe it necessary to press the point further. We can only be amazed at directors and teachers who say, "But these are little children; they pay no attention to such things!" Krupskaya and Makarenko repeatedly warned against such reasoning.

A second problem to which the personnel of pre-school institutions might well give thought is that of contests. Contests represent one of the most common forms of competition.

The organization of a contest for the best equipment, the best planting, the best arrangement of the kindergarten grounds, is a good thing. But the conditions under which these contests are conducted do not always correspond to educational objectives.

It is not uncommon for "contest fever" to result in the planting of so many trees, shrubs and flowers that narrow pathways and cramped spaces are all that remain for the children's games and lessons. The children are always being inhibited by warnings of "careful," "don't run," and "don't throw the ball."

I recall an instance in a kindergarten whose director was a particularly ardent nature-lover. A child casually picked a rose. The whole place was put to finding the "guilty" one. Fortunately he was not identified, or he would really have received a bad scolding!

There are still directors who have to have it spelled out for them that the land made available around the kindergarten is not there merely for purposes of decoration.

The same kind of thing may be seen in winter: a contest for the best appearance of the school site. The teachers try to outdo themselves and each other in the number and quality of "sculptures" and other decorations. Figures of people, animals, mushrooms, clumps of flowers, roofed houses are built out of wet snow. Is there anyone who has not seen a "lake" with "swimming swans" in the middle of a kindergarten playground? Weird as it may sound, playgrounds of this type are awarded first prize in contests.

Aside from the fact that such "creations" are not quite as beautiful as their builders believe, they soon cease to interest the children and merely get in their way, for they clutter up the playground and

confine free play. And how much of the teacher's time, which might instead be given to the children, is wasted on this!

Incidents like the one with the rose also occur at winter playgrounds. There is the case of the child who had accidentally broken the paw of a rabbit made by a teacher. The father reported with bitterness at a parents' meeting on the disturbing consequences for the child. How many tears this caused the little boy, how much worry for his parents. They had to drag him to kindergarten by force: he refused to go of his own free will. The father ended his indignant remarks by concluding, "Better not build decorations if they must be paid for at so high a price."

Of course this does not mean that all snow building must be dropped, that contests for the best playground area should be eliminated. These things should, however, be done in a manner that suits the circumstances. There are many kindergartens at which snow sculptures are displayed to advantage. Off to one side there may be a bear carrying a basket in which the children place their shovels and brooms, or two rabbits holding a rope and "watching" to see that the children do not brush against it. Or there may be horses hitched to a sleigh in which the children can sit as in a real one. A playground only deserves a prize when each object in it serves some particular purpose, when all equipment and decorations are arranged in rational fashion, and when there is ample space for games and play.

A new type of work with parents has become the fashion, in the form of contests for the best children's corner in the home.

One might ask what is wrong with the parents competing for the best arrangement and equipment of this corner. Why shouldn't this be an object of competition?

The winner is the one whose corner is judged best. But what is the criterion to be? If we consider the purpose of the corner, the best will be that which gives the best results in the raising of the child. But we know that a child, the degree of his development, his habits and his skills must not be objects of competition, particularly not of contests. Then is it the things in the corner that shall be the criterion? Or perhaps the efforts the parents have made?

The rules for one such contest stated that the corner must have adequate light, that it have child-size furniture, a wall hanging and rug on the floor, toys, books, paints, pencils, a waste basket, items of personal hygiene and other objects.

How are we to evaluate this? There are those who say that polished furniture is good while others prefer furniture which the father has made with his own hands. One man makes it with hammer and plane; another paints it blue. Who is to say which furniture is better? Suppose there is a rug on the floor but none on the wall? Besides, rugs too may vary. One mother will buy a ceramic service for the dolls, another wood. Which is better?

And what of books? What is important—quantity, content, illustrations? What about books mended by gluing or sewing? Shall this be considered an index of carelessness (the books had been torn) or of care and good work habits? Perhaps a special basin for washing the doll's clothing is missing and the little girl does this chore in the family washbasin. Or suppose the child does not have a store-bought erector set, but has a rich imagination and is able to use all kinds of materials for play purposes: in his hands every block of wood will be a plaything. We might continue such examples indefinitely. They all add up to the fact that the child's corner in the home cannot be the object of a contest.

There is another aspect to this problem which is of primary importance: the children themselves and the concepts they form as a consequence.

Imagine the feelings of parents on the day they prepare for an inspection; imagine them particularly after the results have been announced. Did those who are not winners really put in less effort and desire into creating a good corner for their children? In this situation it is impossible to end up without hurting someone, without setting gossip in motion. Moreover, the children will be witness to it all. If it is difficult to shield them from conversations about the subject in the kindergarten, at home it is impossible. The winners get prizes: presents for the children—a book, a toy. The children concerned are happy and proud of their parents. And the others? What feelings will such a contest engender in them? Disappointment, hurt, envy, dissatisfaction with their own parents. For is it not, after all, the parents' fault that the child didn't get a present?

Even more improbable fantasies are sometimes encountered—there is no other way to describe them.

More than one local newspaper has reported on bicycle and tricycle races between pre-school children. The reporters try to cover

these entertainments as colorfully as possible. Thus, the *Penzen-skaya Pravda*, in an item captioned "Little Ones at the Starting Line," tells how more than sixty children from five to nine years of age raced in the city's central square. This was the second such competition within the year. More: "Races between young children on two- and three-wheelers have become a tradition in our town. They rouse great interest not only among the young participants, but among the adult population."

It would seem to be true that there is nothing so catching as a bad example. Nor do outlying districts lag behind the cities. Thus the inhabitants of the town of Belinsky of Penza Region "... witnessed an uncommon spectacle. For the first time this town, following the lead of the capital of the region, has conducted races among child cyclists. ..."

According to the *Molodoi Leninet*s, "the children of Kindergarten Nos. 3 and 5 participated in a race" in Cherkassk, Stavropol Territory. The names of the winners were published and prizes listed. We can well imagine what bitter feelings, disappointment and undeserved rebukes accompanied this. Are there no trained teachers in Penza and the other towns where things like this take place? How could they have permitted it? Did no one give thought to what all this did to the spirit of the child who lost, what traumas were caused to the fragile nervous apparatus of young children as the result of "races" such as this?

It is inexcusable to transfer to the world of small children that which is done by adult athletes. Competition among skilled athletes is the result of long-term training following a specified routine, and under medical supervision. Here not only strength and agility are improved, but the action of the heart, lungs, etc. But when we are dealing with children the situation is different. Aside from the outlay of physical effort the child's nervous system, which is in a stage of rapid growth and development, is overloaded.

Moreover it is hard to believe that no physical damage results from this type of competitive crush.

Nor can we ignore the negative feelings children experience at the time of the competition and thereafter. A feeling of resentment against adults and their "unfairness" endures, hidden, in the soul of the child. It is difficult for a little boy to understand why he

proved worse than his friend who came home the winner and won a gift. Didn't he also try hard?

Experiences such as these give rise to lack of confidence, timidity and animosity. Much time and effort are needed to help the child regain happiness, spontaneity, and faith in his strength.

Therefore, before any such endeavors are undertaken, they must be thought through and weighed from every angle. And if there is the least possibility that a project will have a negative effect upon a child, it must be dropped.

To give first thought to the child, at all times and in every regard, is our responsibility.

A Tribute to Hemingway

SAD NEWS comes to us from far-off Sun Valley, USA. Ernest Hemingway is gone. He was not one of those who die in bed. Yet it is still hard to believe that the torero, the boxer, the soldier and big-game hunter, but first of all the great writer is no longer among the living. How many times has the telegraph brought us news of his death: a plane in which he was flying had crashed; he had vanished in the remote African jungle. The rumors always turned out to be just rumors. We were almost ready to believe that death would always pass him by. And now this news. . . .

There are people whose immortality begins with the moment of their death. Hemingway is one of these. He was a great artist and a great man. The whole of his creative work was one long struggle, for Hemingway as man and writer had many enemies.

Perhaps the greatest enemy he had was war. He hated it with all his heart, with every cell of his body that was scarred with twenty-eight shell splinters. He hated those who made a business of war. In an introduction written in 1948 to a new edition of *Farewell to Arms* he said that wars were started by people who profit from them and proposed that the warmongers be shot by sentence of the people on the very first day of war.

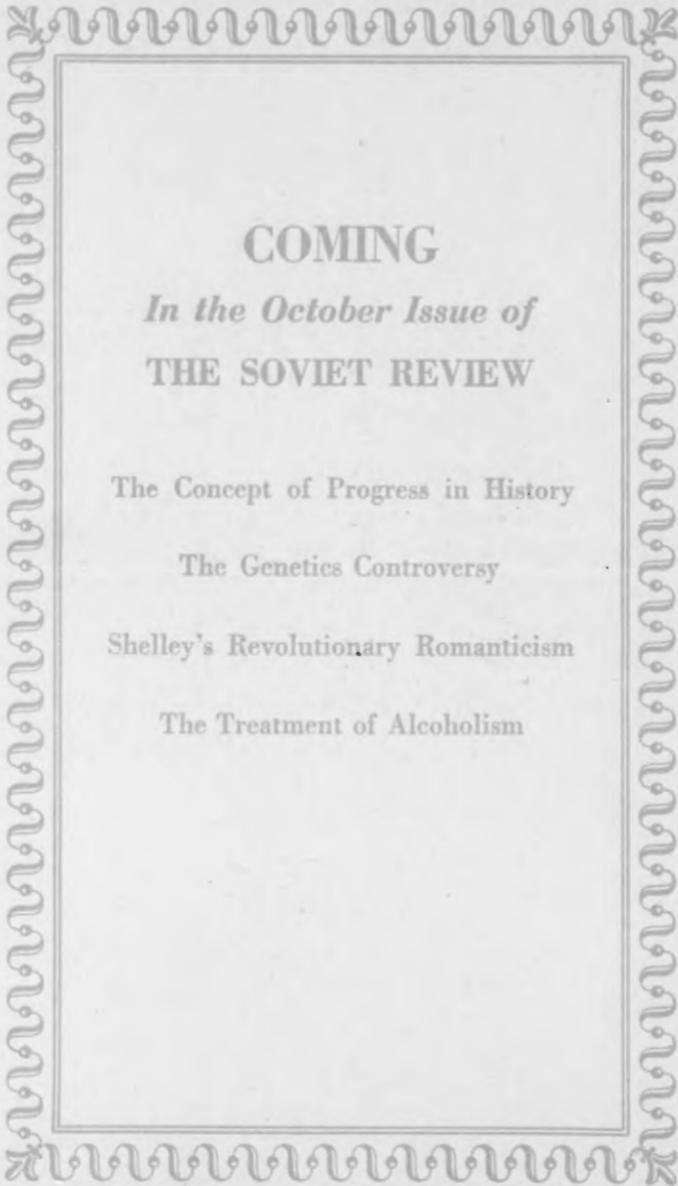
Hemingway hated fascism. "Fascism is a lie made up by bandits, and a writer who makes his peace with fascism is doomed to sterility," he said. He himself never made his peace with it. He fought it with the pen and with the sword. War against fascism was the only form of war he recognized.

Hemingway hated the civilization of the "yellow devil," he hated the society whose mad thirst is *to have*. "Ours was a fine country but we defiled it," he said with grieving heart of his own land. It was hard for him to pronounce this grim truth.

Hemingway's life and his creative work cannot be expressed in the form of a straight line. He had his moments of weakness. Nevertheless he remained unvanquished, like the matador Manolo, like the fisherman Santiago.

His heart has stopped beating. But that to which he devoted his whole life cannot be destroyed. That is why the writer Hemingway will live forever in our memories, in the books he has left behind.

Editorial in *Izvestia*, July 4, 1961



COMING
In the October Issue of
THE SOVIET REVIEW

The Concept of Progress in History

The Genetics Controversy

Shelley's Revolutionary Romanticism

The Treatment of Alcoholism

